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U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN NO. 97.

B. T. GALLOWAY, *Chief of Bureau.*

SEEDS AND PLANTS IMPORTED

DURING THE PERIOD FROM DECEMBER, 1903, TO DECEMBER, 1905.

INVENTORY No. 11; Nos. 9897 to 16796.

Issued March 15, 1907.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1907.

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SEED AND PLANT INTRODUCTION AND DISTRIBUTION.

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LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., August 1, 1906.

Sir: I have the honor to transmit herewith and to recommend for publication as Bulletin No. 97 of the series of this Bureau the accompanying manuscript entitled "Seeds and Plants Imported during the Period from December, 1903, to December, 1905."

This manuscript has been submitted by the Botanist in Charge of Seed and Plant Introduction and Distribution with a view to publication.

Respectfully,
B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

B. P. I.—231.

SEEDS AND PLANTS IMPORTED DURING THE PERIOD FROM DECEMBER, 1903, TO DECEMBER, 1905.

INTRODUCTORY STATEMENT.

This is the eleventh inventory of seeds and plants that have been gathered together by this Office, mainly from foreign countries, and represents two years of work.

It is not published to inform experimenters of plants that are on hand for distribution, because in the great majority of cases the plants and seeds listed have been imported for special problems upon which the Department is at work and they have been already assigned to their respective experimenters and are now, many of them, growing in some part of the country.

These inventories are historical records of the introduction of new plants, some of which have already started new industries in this country. In the past historians have as a rule disdained to consider the advent of a new crop as worthy of careful record, notwithstanding the fact that its arrival might exert a remarkable influence upon the development of the country. It is believed that the publication by the Government of such a record will avoid in the future for these new industries the uncertainty which now exists as to the time of arrival in America of some of our most important plant cultures, which were probably first introduced by the Department of Agriculture. To the large number of agricultural experiment station workers and others who are experimenting with the various introductions, these inventories will be almost indispensable.

As remarked in previous inventories no attempt is made to reform the nomenclature of the plants imported, for in many cases the identification of imported seeds and plants is impossible until several years after their introduction. They must first be grown and studied by specialists in the various plant groups, who are sure sooner or later to include them in their monographs, in which places, and not in such an inventory, botanists are accustomed to search for the most recent nomenclature.

This inventory represents not merely the names of and remarks regarding new plant introductions, but embodies often the notes made at the time of collection by agricultural explorers who have been kept at very considerable expense in the field. In the present case it includes in part the collections made by Prof. H. L. Bolley, of North Dakota, who was sent thru the flax-growing region of Europe in search of the best varieties of flax, especially to find one that was more resistant to the flax rust than those we already have. It covers a portion of the seeds and plants collected by Mr. Ernst A. Bessey during his travels thru a part of the Caucasus, the Crimea, and into Russian Turkestan. It includes a list of valuable new seeds which Hon. Robert P. Skinner very kindly secured in Abyssinia for the Department when sent as commissioner to King Menelik in 1904. The valuable collection of 100 European potato varieties, made by Prof. L. R. Jones, of the University of Vermont, is also included. This inventory includes also the results of Mr. Thomas H. Kearney's explorations in southern Tunis, where he was sent by the Office of Seed and Plant Introduction Investigations to study the date varieties of the Tunisian oases. The collection of date offshoots which Mr. Kearney secured is unique in that it was made after a careful examination of the palms while in full bearing. This is the first time that an agricultural explorer has been given the opportunity to spend the fruiting season in foreign date gardens, and Mr. Kearney's descriptions of the varieties collected in Tunis are from actual observation and not from hearsay. Dry land olives, pomegranates, pistaches, spineless opuntias, and drought-resistant fodder crops were also given attention by Mr. Kearney while in this interesting desert region. The collections made by Mr. P. H. Rolfs during his explorations of the vanilla-growing regions of Mexico are chronicled in this inventory, and the vanilla cuttings secured at that time are contributing their share toward the solution of the problem of vanilla culture in Florida.

A. J. PIETERS,
Botanist in Charge.

OFFICE OF SEED AND PLANT
INTRODUCTION AND DISTRIBUTION,
Washington, D. C., August 1, 1906.

INVENTORY.

9897 to 10260.

From Russia. Received thru Prof. H. L. Bolley, November 24, 1903.

A miscellaneous assortment of seeds collected by Professor Bolley during the season of 1903, as follows:

9897 to 10167.	Linum usitatissimum.	**Flax.**
10168 to 10182.	Secale cereale.	**Rye.**
10183 to 10193.	Avena sativa.	**Oat.**
10194 to 10218.	Triticum vulgare.	**Wheat.**
10219 to 10222.	Hordeum vulgare.	**Barley.**
10223 to 10225.	Helianthus annuus.	**Sunflower.**
10226.	Bromus inermis.	**Smooth brome-grass.**
10227 to 10231.		**Wild grasses.**
10232 to 10235.	Medicago sativa.	**Alfalfa.**
10236 and 10237.	Ervum lens.	**Lentil.**
10238 to 10240.	Pisum sativum.	**Pea.**
10241 and 10242.	Cannabis sativa.	**Hemp.**
10243 and 10244.	Brassica napus.	**Rape.**
10245 to 10247.	Brassica sp.	**Mustard.**
10248.	Cucumis melo.	**Muskmelon.**
10249.	Citrullus vulgaris.	**Watermelon.**
10250.	Ribes grossularia (?).	**Gooseberry.**
10251.	Gleditschia sp.	**Honey locust.**
10252.	Coronilla varia.	**Crown vetch.**
10253.	Lotus corniculatus.	**Bird's-foot trefoil.**
10254.	Trifolium sp.	**Wild clover.**
10255.	Lathyrus sylvestris.	**Flat pea.**
10256 and 10257.	Vicia sp.	**Wild vetch.**
10258.	Vicia sp.	**Wild yellow vetch.**
10259.	Papaver sp.	**Poppy.**
10260.	Prunus sp.	**Cherry.**

10261 to 10263.

From Khojend, Russian Central Asia. Presented by Mr. E. Valneff to Mr. E. A. Bessey. Received December 18, 1903.

10261.	Pyrus malus.	**Apple.**

Seed from wild trees in the mountains.

10261 to 10263—Continued.

10262. PRUNUS DIVARICATA. **Plum.**

Black variety. Seed from wild trees in the mountains.

10263. PRUNUS DIVARICATA. **Plum.**

Yellow variety. Seed from wild trees in the mountains.

10264. QUERCUS SUBER. **Cork oak.**

From Mustapha, Algeria. Received thru Dr. L. Trabut, December 18, 1903.

10265 and 10266. PISTACIA MUTICA. **Turpentine tree.**

From Smyrna, Turkey in Asia. Received thru Mr. B. J. Agadjanian, December 15, 1903.

10265. Very dark brown. **10266.** Very bright green.

10267. PISTACIA ATLANTICA. **Bitoom.**

From Duperre, Algeria. Received thru Mr. Franck Joly, December, 18, 1903.

10268. PISTACIA TEREBINTHUS. **Terebinth.**

From Marseille, France. Received thru Mr. Claude Montel, nurseryman, by Mr. W. T. Swingle, August, 1903.

10269. AVENA SATIVA. **Oat.**

From Mustapha, Algeria. Received thru Dr. L. Trabut, government botanist, by Mr. T. H. Kearney, December 18, 1903.

10270 to 10274.

From Åbo, Finland. Presented by Mr. Alarik Rosenberg, seedsman. Received September 25, 1903.

Seed from crop of 1903, grown on Hovirinha farm in St. Kerins county, state of Åbo and Björneborg, Finland.

10270. HORDEUM VULGARE. **Barley.**

10271. AVENA SATIVA. **Oat.**

10272. TRITICUM VULGARE. **Wheat.**

10273. SECALE CEREALE. **Rye.**

10274. PISUM SATIVUM. **Pea.**

10275 to 10283.

From Stockholm, Sweden. Secured by Mr. J. E. W. Tracy, thru the American consul at Stockholm, from the Governor of Luleå, Sweden. Received September 25, 1903.

10275. HORDEUM VULGARE. **Barley.**

10276. HORDEUM VULGARE. **Barley.**

10277. TRITICUM VULGARE. **Wheat.**

10278. AVENA SATIVA. **Oat.**

White.

10279. AVENA SATIVA. **Oat.**

Black.

10280. SECALE CEREALE. **Rye.**

10281. CANNABIS SATIVA. **Hemp.**

10282. PHLEUM PRATENSE. **Timothy.**

10283. VICIA CRACCA.

10284. PHASEOLUS RADIATUS. **Mung bean.**

From Beaukiss, Tex. Received thru Mr. John B. Lesheen, December 11, 1903.

Grown in 1903 from S. P. I. No. 6430.

10285 to 10288.

From Paris, France. Received thru Mr. W. T. Swingle from the Jardin des Plantes, December 21, 1903.

Cuttings of four species of pistache, as follows:

10285. PISTACIA CHINENSIS.

10286. PISTACIA TEREBINTHUS. **Terebinth.**

10287. PISTACIA MUTICA. **Turpentine tree.**

10288. PISTACIA ATLANTICA. **Bitoom.**

10289 to 10308. VITIS VINIFERA. Grape.

From Erivan, Caucasus, Russia. Received thru Mr. E. A. Bessey, December 21, 1903.

10289. *Black Yezandari.*
10290. *Huseïni.*
10291. *White Saabi.*
10292. *Mskhali.*
10293. *White Kishmish.*
10294. *Khalili* (probably *Yellow Khalili*).
10295. *Shirshira.*
10296. *Kulami.*
10297. *Ambari.*
10298. *Gulyabi.*
10299. *Kyechmamasi.*
10300. *Shirazu.*
10301. *Yellow Yezandari.*
10302. *Goï-chezandaei.*
10303. *Sem-raz'-daet* (sevenfold).
10304. *Urza.*
10305. *Saäbi* (rose-colored).
10306. *Khatchabas.*
10307. *Ak uzyum* (white grape).
10308. *Red Kishmish.*

10309 and 10310.

From Tanegashima, Japan. Presented by Mr. R. Chester to Mr. R. B. Handy. Received December 12, 1903.

Native Japanese seeds as follows:

10309. **"Raishi."**

A kind of gourd. "Sow when other squashes are sown, covering the seed lightly with straw. Train on sticks."

10310. CUCURBITA sp. **"Kaboucha."**

A kind of gourd. Culture same as No. 10309.

10311 to 10314.

From Honolulu, Hawaii. Received thru Mr. J. G. Smith, Special Agent in Charge of the Hawaii Experiment Station, December 26, 1903.

Specimens of native yams, as follows:

10311. DIOSCOREA DIVARICATA (?). **"Hoi."**

Tubers 4 inches in diameter.

10312. DIOSCOREA DIVARICATA (?). **"Toi."**

Axillary tubers.

10313. TACCA PINNATIFIDA. **"Pia."**

Tuber 5 inches in diameter.

10314. SMILAX SANDWICENSIS. **"Uhi."**

10315. LINUM USITATISSIMUM. **Flax.**

From Russia. Collected by Prof. H. L. Bolley in the season of 1903. Received December 21, 1903.

(Ramm, No. 2760.) Sample of *Dalgonetz* flax, crop of 1902, from Kharkof government.

10316. LINUM USITATISSIMUM. **Flax.**

From Russia. Collected by Prof. H. L. Bolley in the season of 1903. Received December 21, 1903.

Diriny Gorky flax (Sakowickz No. 1). (See No. 9989.)

10317. LINUM USITATISSIMUM. **Flax.**

From Russia. Collected by Prof. H. L. Bolley in the season of 1903. Received December 21, 1903.

Diriny Gorky (Sakowickz No. 2). Seed said to be the same pedigree as "No. 1," S. P. I. No. 10316.

10318. TRITICUM VULGARE. **Wheat.**

From Kharkof, Russia. Collected by Prof. H. L. Bolley in the season of 1903. Received December 21, 1903.

10319. TRITICUM VULGARE. **Wheat.**

From Kharkof, Russia. Collected by Prof. H. L. Bolley in the season of 1903. Received December 21, 1903.

10320. SECALE CEREALE. **Rye.**

From Russia. Collected by Prof. H. L. Bolley in the season of 1903. Received December 21, 1903.

10321. AVENA SATIVA. **Oat.**

From Russia. Collected by Prof. H. L. Bolley in the season of 1903. Received December 21, 1903.

10322. PISTACIA TEREBINTHUS. **Terebinth.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., December 30, 1903.

10323. PISTACIA VERA. **Pistache.**

From Catania, Sicily. Received thru Mr. Robert W. Heingartner, December 30, 1903.

10324. SOLANUM COMMERSONI. **Aquatic potato.**

From Marseille, France. Received thru Dr. E. Heckel, January 2, 1904.

"Tubers of the so-called 'aquatic potato' of Uruguay. This species from Uruguay is being experimented with by Doctor Heckel, of Marseille, who is breeding it with the ordinary potato and finds that it gives successive crops on the same soil without the necessity of replanting. It also gives abundant foliage, which he thinks may be used for green forage. He further points out that the bitter flavor of the skin will protect the potato against the depredations of subterranean enemies. Its keeping qualities during the winter are good. Very little rot appears, and rats are not fond of it. The special point, however, to be emphasized in connection with this new species is that the diseases of the potato do not attack it. One difficulty in its culture consists in the necessity of working over carefully the soil to an unusual depth, because the tubers are deeply buried in the soil. It flowers abundantly, beginning in June and ending in September, the flowers having a perfume similar to that of jasmine. Their odor on a hot day is perceptible for several meters. Planting takes place in southern France by means of whole or cut tubers in April and the harvest is in October. Doctor Heckel's experiments are reported upon in the following publications: Sur le Solanum commersoni Dunal, ou pomme de terre aquatique de l'Uruguay, in the Revue Horticole, No. 581, December, 1902, p. 200; Contribution à l'Étude Botanique de quelques Solanum Tubérifères, par M. Édouard Heckel." (*Fairchild.*)

10325. HEDYSARUM CORONARIUM. **Sulla.**

From Malta. Received thru Dr. G. Borg, December 27, 1903.

"Dried roots of sulla covered with the root tubercles caused by *Bacillus radicicola.* These are imported in order to enable Doctor Moore to make cultures of the germ and ultimately to enable rational experiments to be carried out with this important forage plant, especially adapted to the poor soils, rich in lime, in our Southern States." (*Fairchild.*)

10326. PANAX GINSENG. **Ginseng.**

From Korea. Received thru the North Pacific Trading Company, 56 Fifth avenue, Chicago, Ill., January 7, 1904.

Seed guaranteed by the North Pacific Trading Company to be genuine imported seed.

10327. ANDROPOGON SORGHUM. **Sorghum.**

From Durban, Natal. Received thru Messrs. Lathrop and Fairchild from Mr. Reuben W. Beningfield, January 14, 1904.

Native name *Mapela.* "Seed of a variety of sorghum from the east coast of Africa. This variety is that upon which the natives live, and according to Mr. Claude Fuller, entomologist of the Natal agricultural department, it has proved more resistant to a species of aphis which attacks the sorghum in that region than others which were growing side by side with it. This may prove of value in the sorghum regions of this country." (*Fairchild.*)

10328. PISTACIA ATLANTICA. **Bitoom.**

From Orléansville, Algeria. Received thru Yahia ben Kassem, January 14, 1904. Collected in the Sahara.

10329. PHASEOLUS RADIATUS. **Mung bean.**

From Cairo, Ga. Received thru Mr. J. B. Wight, January 14, 1904.

Grown from S. P. I. No. 6430.

10330. AVENA SATIVA. **Oat.**

From Agricultural College, N. Dak. Received November 30, 1903.

Swedish Select. Grown by the North Dakota Agricultural Experiment Station from S. P. I. No. 9422.

10331 to 10339.

From Khojend, Russian Central Asia. Presented to Mr. E. A. Bessey by Mr. E. Valneff. Received January 21, 1904.

10331 to 10334. VITIS VINIFERA. Grape.

Cuttings of the best varieties of grapes grown in Russian Central Asia, as follows:

10331. *Tcharas,* or *Charas.*

10332. *White Kishmish.*

10333. *Black Kishmish.*

10334. *Maizi.*

10331 to 10339—Continued.

10335 to 10337. AMYGDALUS PERSICA. **Peach.**

Cuttings as follows:

10335. *Rugani gau* (or *gow*).

10336. *Shaftali-inzhir.*

10337. *Shaftali*, white.

10338. AMYGDALUS COMMUNIS. **Almond.**

Cuttings.

10339. JUGLANS REGIA. **Persian walnut.**

Nuts from trees growing at a considerable altitude, and should, therefore, be rather late in blooming.

10340 to 10342. VITIS VINIFERA. **Grape.**

From Nikita, near Yalta, Crimea. Presented to Mr. E. A. Bessey by Mr. Theophil Kalaida, head gardener of the Imperial Gardens at Nikita. Received January 29, 1904.

Grape cuttings as follows:

10340. *Shabash.*

Most widely cultivated of the native sorts in Crimea, nine-tenths of the exported Crimean grapes being of this sort (in 1891). A greenish grape, forming medium-sized to large, firm bunches of large roundish berries. Table sort. (Marked *Madame* on label attached to cuttings.)

10341. *Tchauch.*

Greenish, large berries, often almost like plums. Bunches loose. Rather capricious, being easily affected by rainy or windy weather. Not much exported. Dessert sort.

10342. *Asma.*

Blue black, large, elongated berries in large bunches. Table sort. Not so good as the preceding, but prized for the table because of the contrast between its black bunches and the greenish ones of the other sorts.

10343 and 10344. CORYLUS AVELLANA. **Filbert.**

From Nikita, near Yalta, Crimea. Presented to Mr. E. A. Bessey by Mr. Theophil Kalaida, head gardener of the Imperial Gardens at Nikita. Received January 29, 1904.

10343. *Badem.*

Native near Yalta. Elongated, large nuts.

10344. *Trebizond.*

Native near Trebizond, Asiatic Turkey. Nuts large and round; much grown around Yalta.

10345 to 10348. PYRUS MALUS. **Apple.**

From Nikita, near Yalta, Crimea. Presented to Mr. E. A. Bessey by Mr. Theophil Kalaida, head gardener of the Imperial Gardens at Nikita. Received January 29, 1904.

10345. *Sabla Sinap.*

Distinguished for its beautiful appearance.

10346. *Kandil Sinap.*

Widely grown in the Crimea. Fruit longer than No. 10348. For description of both, see *Revue Horticole*, No. 17, 1890, p. 398.

10347. *Konstantinopel.*

10348. *Sari Sinap.*

The most widely grown and best of the Crimean apples. Very late keeper.

10349 to 10351. SORBUS DOMESTICA. **Service tree.**

From Nikita, near Yalta, Crimea. Presented to Mr. E. A. Bessey by Mr. Theophil Kalaida, head gardener of the Imperial Gardens at Nikita. Received January 29, 1904.

10349. *Grossfrüchtige.*

A sort with pear-shaped fruits, 1¼ to 1½ inches by 1 to 1¼ inches.

10350. *Gewöhnliche.*

A sort with apple-shaped fruits, about 1 inch in diameter. Both this and No. 10349 ripen rather late.

10351.

Seedlings about 18 inches high.

10352. TRIFOLIUM JOHNSTONI (?). **Uganda clover.**

From Uganda, East Africa. Received thru Mr. D. G. Fairchild from Mr. R. N. Lyne, Director of Agriculture, Zanzibar, East Africa, January 30, 1904.

"The identification of this species has not been definitely made, but according to a letter of December 29 from Mr. Lyne this is the Uganda clover, which may be of value for breeding experiments in this country. The high plateau of Uganda, upon which this clover grows, altho in the Tropics, has a comparatively mild climate. It is, of course, quite frostless. Mr. Lyne reports nothing further regarding the usefulness of this species, but remarks that Mr. Ainsworth, who secured the seed for him, had great difficulty in collecting it." (*Fairchild.*)

10353. PHASEOLUS VULGARIS. **Bean.**

From Garrettsville, Ohio. Received thru Mr. George J. Streator, February 1, 1904. Grown from S. P. I. No. 3382.

Mr. Streator reports that these beans are far superior to the ordinary white bean, for the reason that they do not spot so badly in wet weather.

10354 to 10363.

From Newton-le-Willows, Lancashire, England. Presented by T. and J. Garton for testing at the experiment stations. Received February 1, 1904.

10354. AVENA SATIVA. **Oat.**

Yellow. (No. 1.)

10355. AVENA SATIVA. **Oat.**

Gray. (No. 2.)

10356. AVENA SATIVA. **Oat.**

Black. (No. 3.)

10357. AVENA SATIVA. **Oat.**

Black. (No. 4.)

10358. AVENA SATIVA. **Oat.**

White. (No. 5.)

10359. AVENA SATIVA. **Oat.**

White. (No. 6.)

10360. HORDEUM HEXASTICHUM. **Six-row barley.**

(No. 7.)

10361. HORDEUM HEXASTICHUM. **Six-row barley.**

(No. 8.)

10362. HORDEUM DISTICHUM. **Two-row barley.**

(No. 9.)

10363. HORDEUM DISTICHUM. **Two-row barley.**

(No. 10.)

10364. TRITICUM DURUM. **Wheat.**

From Idalia, Colo. Received thru Mr. J. A. Riedesel, February 4, 1904. Grown from S. P. I. No. 9478.

Kubanka macaroni wheat.

10365. CITRUS LIMETTA. **Lime.**

From Seharunpur, India. Presented by Mr. W. Gollan, superintendent of the Government Botanical Gardens, at the request of Rev. N. L. Rockey. Received February 5, 1904, thru Mr. G. N. Collins.

"Fruits at Seharunpur and also at Mussoorie at an altitude of 5,800 feet. A good lime and the hardiest of the Indian sorts." (*Gollan.*)

10366. SECALE CEREALE. **Rye.**

From San Giovanni a Teduccio (near Naples), Italy. Received thru Dammann & Co., February 6, 1904.

Abruzzes.

10367. SECALE CEREALE. **Rye.**

From North Water Gap, Pa. Received thru Mr. M. Luther Michael, February 8, 1904.

Winter Ivanof. Grown in 1903 from S. P. I. No. 1342.

10368 to 10370. PUNICA GRANATUM. **Pomegranate.**

From Chios, Turkey in Asia. Presented by Mr. N. J. Pantelides. Received February 9, 1904.

10371. ELAEAGNUS ANGUSTIFOLIA. **Oleaster.**

From Tiflis, Caucasus. Presented to Mr. E. A. Bessey by Mr. A. Rolloff, director of the Tiflis Botanical Garden. Received February 10, 1904.

Unab-pschat ("date fruit"), a sort with large fruits.

10372. ELAEAGNUS ANGUSTIFOLIA. **Oleaster.**

From Tiflis, Caucasus. Presented to Mr. E. A. Bessey by Mr. A. Rolloff, director of the Tiflis Botanical Garden. Received February 10, 1904.

Matna-pschat ("finger fruit"), a large-fruited sort.

10373 and 10374. TRIFOLIUM ALEXANDRINUM. **Berseem.**

From Cairo, Egypt. Received thru Mr. George P. Foaden, secretary of the Khedivial Agricultural Society, February 10, 1904.

10373. *Muscowi*, or *Misowi*. **10374.** *Saida*, or *Saidi*.

10375. LATHYRUS SATIVUS. **Bitter vetch.**

From Cairo, Egypt. Presented by Mr. George P. Foaden, secretary of the Khedivial Agricultural Society. Received February 10, 1904.

Known in Egypt as *Gilban*.

10376 and 10377. PISTACIA spp.

From Aintab, Turkey in Asia. Received thru Rev. A. Fuller, February 12, 1904.

10376. PISTACIA VERA. **Pistache.**

Mixed varieties of the true pistache.

10377. PISTACIA MUTICA. **Turpentine tree.**

"Obtained from the eastern slope of the Amanus Mountains 60 miles west of Aintab, and 'can be relied on as good.' Trees there are largest and best in the country and climate as dry as could be desired, not being subject to the moisture which affects the western slope of the mountains, because of the nearness to the sea. This variety will take the grafts (buds) of *P. vera.*" (*Fuller.*)

10378. LINUM USITATISSIMUM. **Flax.**

From Salem, Oreg. Received thru Mr. Eugene Bosse, January 28, 1904.

Grown in 1903 from S. P. I. No. 9457.

10379 to 10381. LINUM USITATISSIMUM. **Flax.**

From Vologda, Russia. Procured by Prof. H. L. Bolley from Mr. Pierotraschko, government agronomist. Received January 25, 1904.

From the northern limit for the maturing of flax seed, where the very finest type of Russian fiber is produced.

10382 to 10391. TRITICUM spp. **Wheat.**

From Cairo, Egypt. Presented by Mr. George P. Foaden, secretary of the Khedivial Agricultural Society. Received February 19, 1904.

10392 to 10396. CAPSICUM ANNUUM. **Pepper.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January, 1904.

Seed grown from stock furnished by the Department, as follows:

10392. **Paprika pepper.**

Grown from S. P. I. No. 9475.

10393. **Red pepper.**

Grown from S. P. I. No. 3733.

10394. **Red pepper.**

Grown from S. P. I. No. 7654.

10395. **Red pepper.**

Grown from S. P. I. No. 3977.

10396. **Sweet pepper.**

Grown from S. P. I. No. 3905.

10397. RAPHANUS SATIVUS. **Radish.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January, 1904.

Erfurt Crimson Giant. Grown from S. P. I. No. 9487.

10398. LOTUS TETRAGONOLOBUS. **Winged pea.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January, 1904.

Grown from S. P. I. No. 7700.

10399. RAPHANUS SATIVUS. **Radish.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January, 1904.

Everlasting. Grown from S. P. I. No. 4966.

10400 and 10401. ZEA MAYS. **Sugar corn.**

From Auburn, N. Y. Received thru Mr. G. W. Boynton, February 25, 1904.

Malakhof. Two selections of *Malakhof* corn grown from S. P. I. No. 2799.

10400. First early.

10401. Better quality, but second early.

10402. HORDEUM DISTICHUM NUTANS. **Two-row barley.**

From Kwassitz, Austria. Received thru Aktien-Zuckerfabrik, March 2, 1904.

Original *Hanna* pedigreed brewing barley.

10403 to 10404. GOSSYPIUM ARBOREUM (?). **Tree cotton.**

From Guadalajara, Mexico. Secured by Mr. Edward B. Light, United States consular agent for Señor Hilario Cuevas, of San Luis Soyatlan, Jalisco, Mexico. Received February 10, 1904.

10403. (Light's No. 1.)

"The common variety which grows wild in many parts of the state. It is claimed that the tree resists the effects of the drought when other trees perish. There are no known cultivated cotton trees, but there are native trees which have produced a harvest of 50 pounds of cotton. Neither the light frosts we have, nor the boll weevil, nor any other insects injuriously affect the trees. This is claimed by people who have known the tree for fifty years." (*Light.*)

10404. (Light's No. 2.)

"The finest quality of cotton, and yields more prolifically. It seems that a quarter of a century or more ago the natives used this cotton for making cloth, but none has been made of late years and the trees have never been cultivated by the present generation with that end in view. This tree is readily grown and is very hardy. The tree usually begins to bear when it is from 4 to 5 years old." (*Light.*)

10405. MUSA TEXTILIS. **Manila hemp.**

From Manila, P. I. Presented by Mr. H. T. Edwards, of the Bureau of Agriculture, to Mr. L. H. Dewey. Received February 29, 1904.

Seed collected in Tayanas Province.

10406. VICIA FABA. **Broad bean.**

From London, England. Received thru James Veitch & Sons (Limited), 544 King's road, Chelsea, March 1, 1904.

Veitch's Improved Longpod. This variety should be sown in pots or boxes in a cold frame in January and transplanted early in March, lifting with a good ball and molding up the plants. This is better for early supplies than sowing in the open in autumn. For succession the seed should be sown every three weeks from February 1 until June, on a north border in heavy loam in rows 3 feet apart. To get early pods, topping should take place when a good set of blooms is secured.

10407. PHASEOLUS RADIATUS. **Mung bean.**

From Whittier, Cal. Received thru Mr. C. W. Leffingwell, jr., March 5, 1904.

Grown from S. P. I. No. 6430.

10408. (Undetermined.)

From Cochin China. Presented by Mr. J. B. de Taillac, Astoria, Long Island City, N. Y., February 25, 1904.

According to Mr. de Taillac's letter this plant exhales an essence which is so disagreeable to mosquitoes that when placed in windows the insects do not enter the room. This evidence of the efficaciousness of the plant Mr. de Taillac asserts on the information of a friend in Cochin China, where the plant is indigenous.

Mr. de Taillac further remarks that this is also a fodder plant of some value, altho it gives to the milk a slightly disagreeable taste, which can be remedied, however, by the addition to the ration of such a fodder as beets. (See letter of February 3, 1904.)

10409. SWIETENIA MAHAGONI. **Mahogany.**

From Santa Clara, Cuba. Presented by Julio S. Montero & Brothers, March 4, 1904.

Caoba. Seeds of mahogany from the plantation of the father of Montero & Brothers, situated in the province of Santa Clara.

10410. ALEURITES CORDATA. **Wood-oil tree.**

From Hankow, China. Presented by Hon. L. S. Wilcox, consul-general. Received March 3, 1904.

Seed of the wood-oil tree from the province of Hunan, China, fall crop of 1903. According to Consul-General Wilcox's letter of January 12, 1904, "this tree grows wild in the mountains of Szechuan and is also cultivated in the lowlands. The trees, reaching 15 to 20 feet in height, are grown from seed and produce nuts in five or six years. The oil is prest from these seeds, and when they are roasted, before being prest, the oil is more easily extracted. It is better and more is obtained by the latter process. There are several varieties of oil. The yellow or straw-colored one is most exported. The price in this market at present is $5 gold a picul (33⅓ pounds). One variety is black and quite thick and is used entirely by the Chinese. It costs $9 to $10 a picul.

"The name of the oil differs in various localities, as *tung-yu* and *pai-yr*. The value of this oil is due to its astringent and drying qualities. It is used in paints, fine varnishes, and in the manufacture of fine soaps. During the past two years orders from the United States have been constantly increasing, from both the Atlantic and the Pacific coasts. The export is in its infancy but rapidly increasing. The past year 54,475,900 pounds of wood oil were exported from Hankow. This export is annually increasing, the larger portion going to Europe. Seeds can be obtained about the first of the year from orders filled in Hunan and Szechuan. Some have already been sent to the San Joaquin Valley, in California, to a private individual, where they are growing finely, and have led to a request for about 5,000 more seeds from the same party." See also No. 13104.

10411 to 10419. VICIA FABA. **Broad bean.**

From London, England. Received thru William Bull & Sons, Chelsea, S. W., March 3, 1904.

10411. *Bull's Mammoth.*
10412. *Beck's Dwarf Green Gem.*
10413. *Early Longpod.*
10414. *Green Longpod Nonpareil.*
10514. *Monarch Longpod.*
10416. *Seville Longpod.*
10417. *Windsor Improved.*
10418. *Windsor Green Harlington.*
10419. *Johnson's Wonderful Longpod.*

"Broad beans are gross feeders and require a good rich soil and a liberal supply of manure for successful growth. For successional and main crops sow in February, March, and April. The later kinds should be planted in drills 3 inches deep, 4 to 6 inches apart in the rows, the rows to be 2 feet apart. A deep, strong, tenacious soil, liberally manured, is most suitable. Gather for the table when the beans are no larger than full-grown peas, as they become almost uneatable if left to mature, the tegument then being objectionably tough and leathery and the flavor strong. Pick evenly, not young and old together. In England broad beans are subject to black fly, which, if allowed to make headway, will ruin the crop.

"In England the broad bean is one of the best-paying vegetables, and altho it has been successfully grown in America its good qualities have not yet come to be appreciated here. It is worthy of serious consideration." (*Fairchild.*)

10420 to 10435. VICIA FABA. **Broad bean.**

From London, England. Received thru James Carter & Co., March 3, 1904.

10420. *Carter's New Market Garden Windsor.*
10421. *Carter's Improved Windsor.*
10422. *Carter's Seville Giant Longpod.*
10423. *Carter's Mammoth Longpod.*
10424. *Early Mazagan.*
10425. *Early Longpod.*
10426. *Royal Dwarf Fan.*
10427. *Aquadulce.*
10428. *Minster Giant Longpod.*
10429. *Carter's Harlington Green Windsor.*
10430. *Green Windsor.*
10431. *Beck's Dwarf Green Gem.*
10432. *Green Longpod.*
10433. *Carter's Masterpiece Green Longpod.*
10434. *Carter's Leviathan.*
10435. *Carter's Green Leviathan.*

Plant from November to January for earliest, and from February to May for main crop.

10436 and 10437. Vicia faba. **Broad bean.**

From Boston, England. Received thru W. W. Johnson & Son (Limited), March 3, 1904.

10436. *Johnson's Monster Windsor.*

10437. *Johnson's Mammoth Green Longpod.*

In England these beans are frequently sown in November, being perfectly hardy there. It is customary to plant in double rows, viz, 9 inches apart; that is to say, the two rows in a triangular manner. If when full grown in July they are attacked by black fly, cut off the tops of the plants.

10438 to 10448. Vicia faba. **Broad bean.**

From Reading, England. Received from Sutton & Sons, March 3, 1904.

10438. *Sutton's Improved Windsor.*

10439. *Sutton's Green Windsor.*

10440. *Beck's Dwarf Green Gem.*

10441. *Green Longpod.*

10442. *Sutton's Giant Windsor.*

Culture for 10438 to 10442.—Sow in February, March, April, and May. Double rows are usual, allowing 9 inches between the two lines forming the row, and from 2 to 3 feet between the rows. The best soil for beans is a deep, strong loam, with plenty of manure.

10443. *Sutton's Green Giant.*

10444. *Sutton's Exhibition Longpod.*

10445. *Sutton's Mammoth Longpod.*

10446. *Improved Minster Longpod.*

10447. *Royal Dwarf Cluster.*

10448. *Early Mazagan.*

Culture for 10443 to 10448.—A sowing may be made in November on light, dry soil, but not until January, February, or March on other soils. Double rows are usual, allowing 9 inches between the two lines for all except Nos. 10447 and 10448, for which allow only 6 inches. The double rows in all cases are from 2 to 3 feet apart. The best soil for beans when sown in the spring is a deep loam, which should be well manured.

10449. Ilex crenata. **Holly.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company, January 23, 1904.

"Seed of a hardy evergreen, highly esteemed as a good hedge plant for cold climates." (*H. Suzuki.*)

10450. Voandzeia subterranea. **Woandzu, or African goober.**

From Camden, Ala. Presented by Dr. L. E. Starr. Received February 17, 1904.

Grown from S. P. I. No. 8915, originally from German East Africa.

10451 to 10453. Nicotiana tabacum. **Tobacco.**

From Cuba. Received thru Mr. A. D. Shamel, of this Department, March 10, 1904.

10451.

From plantation of Señor Govino Menéndez, near San Juan y Martinez, in the Vuelta Abajo district. (Shamel's No. 1.)

10452. *Cuban.*

From plantation of Señor Galixto López, near San Luis. (Shamel's No. 2.)

10453. *Cuban.*

From plantation of Señor Justinio Sanchez, in Vuelta Abajo district, near Pinar del Rio. (Shamel's No. 3.)

10454. TRITICUM DURUM. **Macaroni wheat.**

From Blackfoot, Idaho. Received thru Prof. H. T. French, director of the Idaho Agricultural Experiment Station, March 9, 1904.

Kubanka macaroni wheat grown from S. P. I. No. 9478.

10455. AVENA SATIVA. **Oat.**

From Blackfoot, Idaho. Received thru Prof. H. T. French, director of the Idaho Agricultural Experiment Station, March 9, 1904.

Swedish Select oat grown from S. P. I. No. 9422.

10456. PHLEUM PRATENSE. **Timothy.**

From Copenhagen, Denmark. Presented by the Botanic Gardens of Copenhagen, thru Prof. Dr. Warming. Received March 8, 1904.

For breeding purposes.

10457. AMYGDALUS PERSICA. **Peach.**

From Bassorah, Arabia. Presented by Haji Abdulla el Nejem, of Bassorah. Received March 8, 1904.

Seeds of various varieties of peaches which are grown in the region of Abdul Khasseb, the great date-growing center of Arabia. These peaches are subjected to the extreme hot weather of this portion of Arabia and are likely to be of interest for breeding purposes in California and Arizona.

10458 to 10461. PHLEUM PRATENSE. **Timothy.**

From Austria-Hungary. Presented by Prof. Emanuel Gross, of the Agricultural Academy, Tetschen-Liebwerd. Received March 9, 1904.

10462. COCHLEARIA ARMORACIA. **Horse-radish.**

From Grand Island, Nebr. Received thru Mr. E. Corbin, March 14, 1904.

Malin. Grown from S. P. I. No. 5761.

10463. CALOPHYLLUM INOPHYLLUM.

From Honolulu, Hawaii. Received thru Mr. J. G. Smith, in charge of the Agricultural Experiment Station, March 12, 1904.

Seed of this tropical tree, related to the mangosteen, for Mr. Oliver's experiments in grafting.

10464. PSIDIUM sp. **Guayabillo.**

From Iguala, Guerrero, Mexico. Presented by Mr. Federico Chisolm, Arcelia. Received January 11, 1904.

10465 to 10472.

From Arcelia, Guerrero, Mexico. Presented by Mr. Federico Chisolm. Received March 12, 1904.

Native Mexican bulbs and seeds, for the most part unidentified.

10473. SOLANUM JAMESII. **Potato.**

From Moab, Utah. Received thru Mr. E. Corbin, of Grand Island, Nebr., March 14, 1904.

Wild or *Cave Dwellers'* potatoes. "I obtained these potatoes last October, when on a visit to southeastern Utah, at Moab, a town about 40 miles south of the Denver and Rio Grande Railway, leaving the railway at Thompson Springs. It is a small town near the mouth of the Grand River where it joins the Green River. Some, found where the ground was soft, were larger than others. It will be seen that there are two kinds. They have run all over the ground where it is not cultivated. They live in the ground frozen hard all winter. They have a top and leaf resembling tomato." (*Corbin.*)

10474. TRITICUM MONOCOCCUM. **Einkorn.**

From Erfurt, Germany. Received thru Haage & Schmidt, March 14, 1904.

10475 to 10521.

From Sydney, New South Wales, Australia. Presented by Mr. J. H. Maiden, superintendent of the Sydney Botanical Gardens. Received March 1, 1904.

A collection of small packets of seed of native plants, as follows:

10475. ACACIA ANEURA.

"Mulga" or "Yarren." A tall shrubby plant or small tree, never attaining a much greater height than 20 feet. Affords an unfailing supply of good forage during long and severe droughts. Drought-enduring qualities are remarkable. Wood is excessively hard and valuable for timber. Considered worthy of cultivation. Western Australia thru mainland colonies to Queensland. Peculiar to the arid western plains beyond the Darling River. (Reference: *Forage Plants of Australia*, p. 33.)

10476. ACACIA MONTANA.

A tall shrub, widely distributed in mountain and forest regions, rocky hills, etc., in the southwestern part of New South Wales.

10477. ACACIA NERIIFOLIA.

A tall shrub. New South Wales, dividing range to table-lands from Clyde River to Queensland; open forests on Balonne River.

10478. ALCHORNEA ILICIFOLIA.

A tall shrub. New South Wales, brush forests; Queensland.

10479. ALPINIA CAERULEA.

An erect perennial herb, 3 to 5 feet, with a terminal inflorescence. New South Wales; coast district in brush forests from Hunter River to Queensland.

10480. BARRINGTONIA ALBA.

Molucca Islands. "The majestic habit of the tree, the splendor of the foliage, the magnificence of the flowers, and, finally, the singular form of the fruit, will attract the attention of the most indifferent." (Extract from *Flore des Serres*, vol. 7, genus description.)

10481. BLANDFORDIA FLAMMEA.

Tender, bulbous plant with large, showy, red flowers in short racemes. Eastern Australia, in peat bogs and on shady mountain sides.

10482. BLENNODIA LASIOCARPA.

"Hairy podded cress." Annual, 1 to 1½ feet high, covered with pubescence; pod hairy. Peculiar to the Darling River, sandy plains near the Murray River, and generally over the arid plains of Australia. Makes its growth during the hottest part of the year; valuable for forage. (Reference: *Forage Plants of Australia*, p. 4.)

10483. BRUNONIA AUSTRALIS.

Herbaceous plant with capitate blue flowers. New South Wales; in dry pastures, chiefly in the west; also in other colonies.

10484. CASSINIA THEODOREI.

A heath-like shrub; branches and under side of leaves woolly white. New South Wales, head of Gwydir River.

10485. CAPPARIS MITCHELLII.

"Native orange." A small tree. Fruit from 1 to 2 inches in diameter; eaten by natives. Wood hard, whitish, close grained, suitable for carving, engraving, and similar purposes. All colonies except Tasmania and Western Australia.

10475 to 10521—Continued.

10486. Castanospora alphandi.

Large tree with pinnate leaves; flowers racemose-paniculate.

10487. Celtis paniculata.

Tree 25 to 35 feet high; wood soft, white, pliable; used for hoops for casks. New South Wales, Queensland, and northern Australia; not endemic in Australia.

10488. Chloris truncata.

"Windmill grass," or "star grass." An erect grass, perennial and showy. Valuable as a forage plant; an excellent summer and autumn grass. In all Australian colonies except Tasmania and Western Australia.

10489. Combretum loeflingii.

Climbing or diffuse shrub. Tropical South America.

10490. Craspedia richea.

A rather large perennial. New South Wales, thruout the colony in grass land; also in Victoria, Tasmania, South Australia, and Western Australia.

10491. Dianella tasmanica.

Perennial fibrous-rooted plant with grasslike leaves 2 to 4 feet long; large, loose panicles of blue flowers on delicate pendent pedicels. Succeeds best in open border of a cool greenhouse. Tasmania and Australia; common in rich, moist soil.

10492. Dillwynia cinerascens.

Pretty yellow-flowered juniper-leaved shrub. New South Wales; also coast district and dividing range from Hunter River to Victoria; Tasmania. Common in grassy places.

10493. Dodonaea triquetra.

"Hop bush." A shrub. Victoria, New South Wales, Queensland.

10494. Dysoxylon muelleri.

"Pencil cedar" or "turnip wood." Tree with compound leaves; timber of a rich, red color; used for cabinetmaking and window work. Northern New South Wales and Queensland.

10495. Elaeodendron curtipendulum.

Probably a tree or shrub. Norfolk Island.

10496. Eremophila brownii.

Very variable shrub, often tall. Victoria, Murray desert; New South Wales, western plains; South Australia.

10497. Eremophila latifolia.

Small spreading shrub. New South Wales, southern interior; Western and South Australia.

10498. Eremophila maculata.

Tall shrub with rigid branches. Western and South Australia; western plains of New South Wales and Queensland; Victoria.

10499. Eremophila mitchelli.

Shrub or small tree, on elevated stony lands. New South Wales, western plains in the south.

10500. Eremophila oppositifolia.

"Emu bush." Ornamental shrub or small tree, sometimes attaining a height of 20 feet; more or less hoary; leaves 1 to 2 inches in length; flowers about 1 inch long. Grows in the most arid parts of the continent and is available for forage. "Will grow when not a blade of grass is seen for weeks together." Worthy of cultivation. Plains between Lachlan and Darling rivers in New South Wales; near Murray River in Victoria, and in the interior of South Australia.

10475 to 10521—Continued.

10501. Eremophila bowmani.

Erect shrub. Western plains from Byrock to Queensland.

10502. Eriostemon difformis.

Small bushy shrub. Interior of New South Wales.

10503. Eucalyptus behriana.

A small shrub or small tree. Near sources of Werribee River, on stony hills; in hill forest region of Wirrabara, near Crystal Brook and Mount. Remarkable on deep, nearly clay soil.

10504. Eucalyptus diversicolor.

"Karri," "Blue gum." Colossal tree, exceptionally reaching a height of 400 feet. Furnishes good timber for building. Southwestern Australia, in fertile, rather humid, valleys; on small elevations in swamps near rivers beyond the reach of water.

10505. Eucalyptus coccifera.

Small tree with leaves under 3 inches long. Tasmania, 3,000 to 4,000 feet elevation. Possibly a subalpine form of *E. amygdalina.*

10506. Eucalyptus incrassata.

Shrubby or arborescent, exceptionally rising to 30 feet. From the Murray and Darling rivers thru desert tracts to the Great Bight. Chiefly on sand ridges, but also on Tertiary limestone, extending in some places to the brink of the ocean.

10507. Eucalyptus tereticornis.

"Flooded gum tree." Tall tree when well developed, but seldom exceeding 100 feet. Timber is excellent. Never very far removed from littoral regions; occupying generally humid flats or growing around swamps and lakes or along water courses, never on saline ground or salt-water streams.

10508. Eucalyptus virgata.

A tall, straight-growing white gum. Valleys of the higher parts of the Blue Mountains or at the foot of cliffs in fairly good soil.

10509. Hovea heterophylla.

A blue-flowered, evergreen shrub, prostrate or decumbent. New South Wales, coast district to table-land in dry, stony localities.

10510. Melaleuca pustulata.

Small or tall shrub. New South Wales, southern interior; Victoria, Tasmania, South Australia.

10511. Myoporum deserti.

"Sweet-fruited myoporum." Erect shrub, 3 to 4 feet high, with linear leaves 1 to 2 inches long. Said by some to be poisonous when in fruit; others state that it is a capital forage plant. Found principally in the interior of all the colonies of Australia. (See *Forage Plants of Australia*, p. 40.)

10512. Olearia pimeloides.

Bushy shrub. Victoria and western plains of New South Wales.

10513. Podolepis acuminata.

Erect perennial shrub. New South Wales; Victoria, Hardinger range at elevations of 5,000 feet; Tasmania, abundant in many parts of the colony, ascending to 4,000 feet.

10514. Prostanthera striatifolia.

Rather small, rigid shrub. New South Wales, barren hills of the interior from Lachlen River to Queensland.

10515. Grevillea linearis.

A tall, delicate shrub, with spreading branches and linear leaves. New South Wales, coast district and dividing range from Clyde River to Port Jackson.

10475 to 10521—Continued.

10516. Sporobolus lindleyi.

A slender-growing perennial grass. Grows on rich soil and is much relished by all kinds of stock. All Australian colonies except Tasmania.

10517. Sclerolaena bicornis.

"Cotton bush." Small, stout shrub, densely white, tomentose. New South Wales, western plains.

10518. Trichinium alopecuroideum.

Rather slender, perennial herb. New South Wales, western plains; also in other Australian colonies.

10519. Trichinium obovatum.

"Silver bush." An erect undershrub 1½ to 4 feet. Flower spikes globular. Has remarkable drought-enduring qualities; will grow in the driest of soils when once fairly established. Valuable as a forage plant. Arid interior of all Australian colonies.

10520. Trichinium exaltatum.

Tender perennial, 2 to 3 feet. Western plains of New South Wales; other Australian colonies.

10521. Trichinium nobile.

"Yellow-hairy spikes." Stout perennial herb. Not easily affected by drought; affords a rich, succulent herbage even in very dry weather, of which stock are very fond. Interior of New South Wales and South Australia and Victoria. (Reference: *Forage Plants of Australia*, p. 85.)

10522. Garcinia morella. **Gamboge.**

From Kingston, Jamaica. Presented by Dr. William Fawcett, director of the Botanical Garden. Received March 17, 1904.

"A moderate-sized tree which produces the true gamboge of commerce, used in Europe and America as a pigment. In the Orient this pigment is used for dyeing silks and other fabrics. The oil in the seeds is used in Mysore as a substitute for lamp oil. These seeds are imported for use as a stock for the mangosteen, upon which the latter was grown successfully many years ago by Mr. Harris, superintendent of Castleton Garden, Jamaica, and also later by Mr. Hart, of Trinidad. Fruit the size of a cherry, subglobose, slightly four-lobed, four-celled, and four-seeded. In Singapore this species grows without any particular attention, it is said, and attains a height of 35 to 50 feet. It is probable that this species has a much more vigorous root system than the mangosteen, and is therefore a promising possibility as a stock for the mangosteen." (*Fairchild.*)

10523. Phaseolus angularis. **Bean.**

From Kingston, R. I. Presented by Mr. G. E. Adams, of the Rhode Island Agricultural Experiment Station. Received March 12, 1904.

A bean secured by Professor Brooks, of the Massachusetts Agricultural Experiment Station, in Japan, under the name of "*White-Podded Adzuki* soy bean."

10524. Miscanthus condensatus (?).

From Yokohama, Japan. Presented by Mr. H. Suzuki, of the Yokohama Nursery Company. Received March 9, 1904.

"This root having been brought from the southeastern part of Japan, where there is no snow in winter, it is doubtful whether it will stand your climate. It will therefore be well to try it in such Southern States as Florida or California. I am sure it will succeed well. In the native region where these plants are growing its leaves remain green all thru the year and cattle are fed upon it. It should be cut while young, before its full growth, as the stem gets too hard if left too long. Young stems can be cut gradually from time to time thruout nearly the whole year, but a few stems on each clump should always be left without cutting, as it sometimes dies out if cut off too severely. I endeavored to get some seed of this plant, but the stems being constantly cut by the villagers make it very difficult to secure them. It seldom flowers. The roots, however, can be secured in any quantity." (*Suzuki.*)

10525. PYRUS MALUS. **Apple.**

From Amassia, Turkey. Presented by Mr. H. Caramanian. Received March 16, 1904.

Misket. A variety of apple from this noted fruit region of Turkey. In letter of April 25, Mr. Caramanian remarks "that the Misket apple is the best variety of apple grown in this country. It has a crimson-red color when fully ripe. Its texture is fine and its flavor deliciously sweet. It has a keen, musky smell peculiar to itself, from which it takes its name, *misk* in Arabic meaning musk. In a room containing only one apple one may discover its presence by its smell. In exceptional cases individual specimens weigh as much as a pound, but are generally smaller. In such a town (Amassia), where a hundredweight of peaches costs from 20 to 25 cents, this apple is sometimes sold as high as 15 cents a pound. First-class apples are exported to Constantinople and the rest are used here."

10526. PRUNUS DOMESTICA. **Plum.**

From Amassia, Turkey. Presented by Mr. H. Caramanian. Received March 16, 1904.

Uryäný. A variety of plum from this noted fruit region of Turkey. In a letter of April 25, Mr. Caramanian says: "The Uryäný plum is one of the choicest varieties of plums that I have ever seen here or in America. It is of a greenish yellow color when fully ripe. It is very fleshy and juicy, with an exceedingly thin skin. It tastes sweet and the stone is not very loose. As the orchardists do not know how to take care of the fruit trees, we find only a few perfect specimens on the trees."

10527. PHASEOLUS RADIATUS. **Mung bean.**

From Patras, Greece. Received thru Mr. Socrates Xanthopoulo, March 17, 1904.

10528 to 10530. ALNUS spp.

From Yokohama, Japan. Presented by Mr. H. Suzuki, of the Yokohama Nursery Company. Received March 9, 1904.

10528. ALNUS JAPONICA (?). **10530.** ALNUS INCANA.

10529. ALNUS FIRMA.

"Species of Alnus which are used by the Japanese as shade or shelter trees in the plantations of the Mitsumata paper plants, especially on hillside plantations. From the fact that the different species of Alnus produce root tubercles it is hoped that cultures can be secured of the micro-organisms which form them. It has been suggested by Mr. Swingle that the value of this Alnus as a shelter plant may be due largely to the nitrogen-collecting power of these tubercles. If this proves to be true, the cultivation of these species of Alnus may be of value for certain American cultures and especially in connection with the cultivation of the paper plant." (*Fairchild.*)

10531. BETA CICLA. **Leaf beet.**

From Vomero, near Naples, Italy. Presented by Dr. Carl Sprenger, March 18, 1904.

Seeds for experiments in breeding with the sugar beet, to be carried on by Dr. C. O. Townsend and Mr. E. C. Rittue.

10532. TRIFOLIUM PRATENSE. **Red clover.**

From Riga, Russia. Secured by Mr. E. A. Bessey from Mr. Heinrich Goegginger. Received March 21, 1904.

Orel.—The seed of the promising hairless clover No. 16, to which it is desired to call special attention, was obtained by Mr. Bessey through Mr. Goegginger, of Riga, and was produced on the estate of a German grower near Yeletz, in the eastern part of the Orel government. The grower made a practise of saving his own seed, and hence this strain had been grown on the same estate for a number of years.

According to Mr. Goegginger, the government of Orel furnishes the best red clover seed obtainable in Russia. Its chief crops are winter rye and oats, and it is in rotation with these that the clover is grown. A small quantity of winter wheat is also grown.

This variety is distinguished by the dustlessness of its hay, due to almost complete absence of hairiness from all parts of the plant; by its heavy yields for the first crop; by its leafiness and the persistence of the basal leaves; by the succulence of the stems, which improves greatly the quality of the hay and reduces the waste due to woody, uneatable portions; by greater palatability than hay from domestic seed, and by the fact that it comes to proper maturity for harvesting from ten days to two weeks later than the ordinary American red clover.

Except in certain sections and for certain purposes this variety is not recommended for supplanting domestic red clover, but rather for supplementing the latter. See Bulletin No. 95 of the Bureau of Plant Industry entitled "A New Type of Red Clover." (*Charles J. Brand.*)

10533 and 10534. TRIFOLIUM PRATENSE. **Red clover.**

From Riga, Russia. Secured by Mr. E. A. Bessey from Mr. Fr. Lassmann, Riga, Russia. Received March 21, 1904.

10533.

From estate owned by Mr. Legsdin, Mohileff government, near Zhlobin.

10534. *Courland.*

From estate of Mr. Sillin, Neuhof, Courland government. A high-growing sort.

10535 to 10543. VICIA FABA. **Broad bean.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., March 21, 1904.

10535. Large, common field variety.
10536. *Perfection.*
10537. *Sevilla*, long-podded.
10538. *Aguadulce*, extra long-podded.
10539. *Windsor.*
10540. *Green Windsor*, or *Genoa.*
10541. *Small Green Julienne.*
10542. *Dwarf Early.*
10543. *Beck's Gem*, green.

10544. **Bean.**

Originally from Spain. Received thru Mr. Rosendo Torras, of Brunswick, Ga., March 20, 1904.

Large white beans, slightly marked with red, varying in size. "Apparently different from any raised in this country." (*Torras.*)

10545. PHLEUM PRATENSE. **Timothy.**

From Vienna, Austria. Received thru Dr. Victor Lieb, Court Gardener to Palace of Miramar, near Trieste, Austria, March 24, 1904.

10546. PHLEUM PRATENSE. **Timothy.**

From Luleå, Sweden. Received thru Dr. Paul Hellström, March 24, 1904.

Grown at Persön Norrbattens Läu, Sweden, in 1901. Imported for the experiments in the breeding of timothy at Ithaca, N. Y.

10547 to 10550. PHLEUM spp.

From Vienna, Austria. Received thru Doctor Weinzierl, Councilor, Seed Control Station in Vienna, March 24, 1904.

Four species of Phleum from the experiment station in the Austrian Alps, known as the Sandling-Alp Station, which has won a wide reputation for its work on forage crops and grasses in the Alps. These seeds were imported for breeding purposes, especially at the Cornell Experiment Station at Ithaca, N. Y.

10547. PHLEUM MEDIUM.

10548. PHLEUM ALPINUM.

10549. PHLEUM MICHELLII.

10550. PHLEUM PRATENSE.

10551. (Undetermined.)

From Arcelia, Guerrero, Mexico. Presented by Mr. Federico Chisolm. Received March 26, 1904.

Seeds of a "blue-flowered perennial 12 to 18 inches high. Flowers 1¼ inches in diameter with yellow center. Ought to be used for bedding." (*Chisolm.*)

10552. TRITICUM VULGARE. **Wheat.**

From Sitka, Alaska. Grown at the Alaska Agricultural Experiment Station by Prof. C. C. Georgeson, from S. P. I. No. 1341 (?). Presented to the Secretary of Agriculture (probably in 1900) by Professor Georgeson.

10553 to 10556. CUCUMIS MELO. **Muskmelon.**

From Khojend, Russian Central Asia. Presented by Mr. E. Valneff to Mr. E. A. Bessey. Received March 28, 1904.

10553. *Ak Kuiriuk.*

10554. *Bosvaldi.*

10555. *Parsildak.*

10556. *Savnazik.*

10557. BLIGHIA SAPIDA. **Akee.**

From Hog Island, near Nassau, West Indies. Presented by Mrs. Ralph Johnson. Received March 25, 1904.

"The fruit of the akee, especially the arillus lying immediately below the seeds, is reported to be a delicious vegetable and to resemble in taste bits of sweetbread when cooked with meats or omelets. Worthy of attention in the Subtropical Gardens in Florida and a possibility as a culture in Porto Rico." (*Fairchild.*)

10558 to 10562. AMYGDALUS COMMUNIS. **Almond.**

Received thru Mr. J. W. Kerr, of Denton, Md., April 7, 1904

10558. *Castillet.*

Grown from S. P. I. No. 7133 (745).

10559. *Fabrica.*

Grown from S. P. I. No. 7135 (748).

10560. *Jordan.*

Grown from S. P. I. No. 7398 or No. 7401 (765 and 771).

10561. *Mollar.*

Grown from S. P. I. No. 7061 (740).

10562. *Planeta.*

Grown from S. P. I. No. 7062 or No. 7134 (741 and 746).

10563. TRIFOLIUM PRATENSE. **Red clover.**

From St. Petersburg, Russia. Secured by Mr. E. A. Bessey from Mr. G. Frick. Received April 11, 1904.

"Seed from Rjeschiza, Vitebsk government, in northwestern Russia. Should prove hardy." (*Bessey.*)

10564. TRIFOLIUM PRATENSE. **Red clover.**

From St. Petersburg, Russia. Secured by Mr. E. A. Bessey from Mr. G. Frick. Received April 11, 1904.

"Seed from Ekaterinburg, in Siberia. Climate very cold in winter." (*Bessey.*)

10565 to 10567. TRIFOLIUM spp. **Clover.**

From Russia. Presented by Prof. Charles E. Bessey, of the University of Nebraska. Received April 9, 1904.

Samples of clover seed collected by Professor Bessey in the summer of 1903, as follows:

10565. TRIFOLIUM LUPINASTER. **Five-leaf clover.**

10566. TRIFOLIUM sp.

10567. TRIFOLIUM HYBRIDUM. **Alsike.**

"Last summer I picked up several seeds of odd clovers which interested me very much, and I am wondering whether you may not wish to have them. One of these seeds is the five-foliate clover, which was given me by the professor in the Agricultural Institute of Moscow. Another resembles the common red clover, but is evidently distinguished from that species. I collected these seeds in the heart of the Caucasus Mountains, at an altitude of probably 6,000 feet. The exact locality is Kazbek. Another resembles the alsike clover and was obtained from the same locality as the last." (*Bessey.*)

10568. CYPERUS PAPYRUS. **Egyptian paper plant.**

From Washington, D. C. Presented by Mr. Peter Bisset, gardener of the Gardner Hubbard estate, "Twin Oaks," Washington, D. C. Received March 30, 1904.

10569. FAGOPYRUM ESCULENTUM. **Buckwheat.**

From Walhonding, Ohio. Presented by the originator, Mr. Charles L. Lonsinger, thru Hon. J. W. Cassingham, M. C. Received April 1, 1904.

The variety is described by Mr. Lonsinger, in his letter of February 23, 1904, to Mr. Cassingham, as follows:

"It is a variety of my own creation and it withstands hot weather better than any other variety. To determine this, I have been sowing it to have it filling during heat of summer. In this I had an excellent test the summer of 1901, when it filled while the thermometer registered 95° to 102° F. in the shade day after day. My motive was to get a heat-resisting variety, in which I am pleased with my success. What I claim for it is that it will produce plump grains in hot weather, when other varieties fail and the Japanese varieties shrivel beside it; that it will produce more per acre than Silverhull or Japanese buckwheat, and will double the yield of either in hot weather. It can be sown in spring and midsummer, or in ordinary seasons two crops can be grown.

"It grows a stout plant and stands up better than Silverhull. In a test with Silverhull, 2 bushels each by weight, it produced one-half pound more flour than Silverhull and cakes were of a milder flavor than cakes from Silverhull. Six pounds in chaff (5 pounds, estimated, clean seed), selected in 1902, and sown in spring of 1903 on ordinary ground and shaded on one side by timber, produced 454 pounds, or 9 bushels 4 pounds. In 1902 I sowed it July 5 and it was ripe September 10."

10570. SOLANUM TUBEROSUM. **Potato.**

From New York, N. Y. Presented by J. M. Thorburn & Co., seedsmen.

Earliest of All, a new seedling variety.

10571 to 10575.

From Arcelia, Guerrero, Mexico. Presented by Mr. Federico Chisolm. Received March 28, 1904.

A collection of bulbs and tubers, mostly unidentified.

10576. COCHLEARIA ARMORACIA. **Horse-radish.**

From Edgewater Park, N. J. Presented by Mr. B. D. Shedaker. Received April 13, 1904.

Maliner Kren. Roots grown from S. P. I. No. 5761.

10577. TRIFOLIUM PRATENSE. **Red clover.**

From Riga, Russia. Secured by Mr. E. A. Bessey from Mr. H. Goegginger. Received April 15, 1904.

"Red clover from Ufa, a dry region and cold in winter but having little snow. Seed rather poor, but for climatic regions ought to be valuable." (*Bessey.*)

10578. PHLEUM PRATENSE. **Timothy.**

From Tokyo, Japan. Presented by Dr. Oscar Loew, of Komaha Agricultural Experiment Station. Received April 13, 1904.

"Sample of seed for Mr. Gilmore's experiments in the selection of better races of timothy at the State Agricultural Experiment Station, Ithaca, N. Y. Furnished Doctor Loew by the Tokyo Plant Seed Company. The origin of the seed is uncertain. Presumably, however, it was gathered in Japan." (*Fairchild.*)

10579. EUTREMA HEDERAEFOLIA. **Dry-land wasabi.**

From Yokohama, Japan. Presented by Mr. H. Suzuki, of the Yokohama Nursery Company. Received April 18, 1904.

"This wasabi is said to grow well in ordinary dry soil in shade, but it being a native of the central part of Japan it might not resist your climate.

"It seems to be much easier of cultivation than the ordinary wasabi which we sent you before, tho it will take some years before it grows to the size of ordinary wasabi roots, but, as the leaves have a very good flavor, it is said to be eaten by the natives as one of the best kinds of spice. It is mostly growing wild and not in cultivation yet." (*Suzuki.*)

10580 to 10582. PRUNUS CERASUS. **Cherry.**

From Moscow, Russia. Secured by Mr. E. A. Bessey, thru Mr. Emil Meyer, head gardener of the Agricultural Institute. Received April 18, 1904.

10580. *Vladimir.*

10581. *Roditelsky.*

10582. *Vladimir.*

10583 to 10586. **Barley.**

From Svalöf, Sweden. Received thru the Allmänna Svenska Utsädesaktiebolaget (General Swedish Seed-Breeding Company), April 18, 1904.

"A collection of pedigreed brewing barleys, each one 100 per cent pure seed, which have been produced by selection at the Swedish Seed-Breeding Institute in Svalöf, under the direction of Dr. N. H. Nilsson. They are recommended for their remarkable uniformity of growth, their heavy yielding character, and the low nitrogen content of their kernels. Belonging to the two-rowed type of barley, they require to be kept longer on the growing floor or in the growing drum of the malt house, but in the opinion of European experts these pedigreed pure races of barley grow more uniformly and make a better quality of beer than the ordinary types of barley grown in America, which are all of mixed races. The different sorts represent practically pure types of Doctor Nilsson's various barley races and translations of his descriptions are given herewith." (*Fairchild.*)

10583. HORDEUM DISTICHUM NUTANS.

Prinsess. 0105. Head relatively thick and broad, with somewhat separated kernels and spreading awns. Before ripening, yellowish. Kernel finely built, medium in size, full, on both sides unusually finely wrinkled, yellow, with a slightly whitish tint. Plant strong, of medium height, thickly leaved, very well stooled, with strong, relatively stiff stems; leaves somewhat high on the stem. Medium late, ripening a few days later than the *Chevalier.* Extraordinarily productive, especially suited for mild, moderately strong, not too heavy soils. As a brewing barley, especially high prized. Belonging to Doctor Nilsson's Alpha group.

10584. HORDEUM DISTICHUM NUTANS.

Chevalier II. 0403. Head long, small, and loose, with kernels not divergent; never reddish colored. Kernel medium sized, full, and especially finely

10583 to 10586—Continued.

formed, finely wrinkled, and strongly yellow colored. Plant medium strong; leaves abundant, but placed low on the plants. Not very abundantly stooled, with somewhat weak culms. On account of this latter habit a variety especially suited to warm, light, not very heavy soils. Productivity, medium. Ripening time, not very early, but still a few days before the *Prinsess*. As a brewing sort, in suitable locations, much esteemed. Belonging to Doctor Nilsson's Alpha group.

10585. HORDEUM DISTICHUM NUTANS.

Hannchen. Head unusually thick for nodding barley; kernels not divergent and therefore the head is more compact, narrower, small, standing horizontally on the straight culm; light yellow in color before ripening. The awns are often thrown off. Kernel small, especially fine in form and color; light yellow, very finely wrinkled. Plant of peculiar habit, late starting into growth, but nevertheless very heavily stooling with several equally strong, graceful, but hard and very stiff culms which have few leaves, and these are near the ground. Ripens very early, little later than the *Swansneck*. Productiveness very good. Especially adapted for light, warm soils, and above all for high altitudes. Can stand well heavy manuring. As a brewing barley well qualified. It belongs to Doctor Nilsson's Alpha group.

10586. HORDEUM DISTICHUM ERECTUM.

Primus. 0706. Head rather long and relatively small, somewhat loosely built, with awns slightly spreading. Head borne on the culm, which is bent above almost horizontally. Kernel good, medium large, especially finely formed and full, finely wrinkled, rich yellow. Plant strong, moderately stooled, with upright very strong culms. Ripens early, scarcely perceptibly later in maturing (a day or so) than the *Hannchen.* Productiveness especially good. Quite certainly, so far as quality is concerned, the highest grade yet known among the "Imperial" barleys. Especially suited to heavy, cold loams and clay soils, such as are to be found in middle Sweden. Bred in the region where the sort already—thanks to its strong culms and earliness—has opened quite new regions for the culture of brewing barley.

10587. JUGLANS hyb. **Walnut.**

From Santa Ana, Cal. Received thru Mr. P. H. Dorsett, of Chico, Cal., April 18, 1904.

"I am sending you a tree which, as near as can at this time be determined, is a hybrid between the southern California black walnut and the native live oak. Native black-walnut seeds were planted as stocks, and these trees appeared in the rows. Walnut buds 'take' on these as readily as on the native stock, or even more readily." (*Dorsett.*)

10588. LOLIUM PERENNE. **Rye-grass.**

From The Hague, Holland. Presented by Mr. Berendsen, hortulanus of the Royal Zoological-Botanical Society. Received April 17, 1904.

Westerwoldicum. "A variety of rye-grass originated in the north of Holland, which has the reputation of being much superior in rapidity of growth and quantity of hay cut to that grown from the Scotch variety, which is sometimes planted here." (*Berendsen.*)

10589. PHLEUM PRATENSE. **Timothy.**

From The Hague, Holland. Presented by Mr. Berendsen, hortulanus of the Royal Zoological-Botanical Society. Received April 17, 1904.

"According to Mr. Berendsen the timothy seed used in Holland is usually imported from Scotland. This may be of Scotch origin. Imported for the timothy experiments conducted at the Cornell University Agricultural Experiment Station, Ithaca, N. Y." (*Fairchild.*)

10590 to 10597. DIOSCOREA spp. and XANTHOSOMA spp. **Yam and yautia.**

From San Juan, P. R. Presented by Miss Jenny H. Ericson. Received April 19, 1904.

A collection of Porto Rico yams and yautias not identified botanically. Yam culture in the West Indies is one of the most profitable small-plant industries. The botanical nomenclature of the various species is an important question.

10598 to 10614.

From Askhabad, Trans-Caspian territory, Turkestan. Secured by E. A. Bessey from Mr. A. Bashmakoff. Received April 22, 1904.

A collection of seeds and cuttings as follows:

10598 to 10609. VITIS VINIFERA. **Grape.**

10598. *Kara Kischmisch, Shiburgani,* or *Black Kishmish.*

Berry elongated oval, violet black, seedless, small, very sweet, producing a good red wine and also best *Black Kishmish* raisins; ripens in August.

10599. *Hussein Kara,* or *Black Huseïni.*

Differs from No. 10604 in its black color; ripens in July.

10600. *Halili ak,* or *White Khalili.*

Berry oval, conical, small, green covered with black dots, hard, of average taste; one of the earliest Asiatic sorts; ripens about the middle of June.

10601. *Daria.*

Berry spherical, or sometimes slightly elongated. Dark carmine with yellowish spots, sweet; a very early sort; ripens at Bairam Ali about the middle of June.

10602. *Bagishty.*

Berry large, spherical, very sweet, golden when ripe. This sort is good for table use and for jelly, etc.; is also a wine variety; ripens early in September.

10603. *Taifi.*

Berry elongated oval, obtuse at the apex, greenish color covered with dark carmine streaks and bloom, sweet; flesh very compact; when hung from the ceiling of a cool room it keeps the whole winter; has no superior for preserves and marmalade; ripens the middle of September.

10604. *Husseini ak,* or *White Huseïni.*

Berry white, at the time of ripening wax-colored, long, very sweet and juicy; the best table sort; ripens in June and July. (See No. 10290.)

10605. *Sahibi rosa,* or *Rosa Sakhabi.* (See No. 10305.)

10606. *Schokar ak,* or *White Shokar.*

10607. *Schiburchani,* or *Shiburkhani.*

10608. *Wassarga,* or *Vasarga.*

Berry large, comprest, spherical, with one or two furrows at the stalk, at maturity golden color, giving a good table wine; also good for making raisins.

10609. *Maska.*

Berry white, spherical, sometimes elongated, very large, reaching the size of a plum; used for the preparation of the best sorts of raisins; also for preserves; one of the most showy of the Central Asiatic sorts; ripens in July.

10610. PHASEOLUS RADIATUS. **Mung bean.**

Masch.

10598 to 10614—Continued.

10611. TRITICUM POLONICUM (?). **Wheat.**

Red Winter; unirrigated.

10612. ANDROPOGON SORGHUM (?). **Sorghum.**

Djugara.

10613. CHAETOCHLOA ITALICA. **Millet.**

Kunach, or *Kunak.*

10614. KOSTELETZKYA PENTACARPA.

Kanaf.

10615 to 10620. PERSEA GRATISSIMA. **Avocado.**

From Honolulu, Hawaii. Presented by Mr. Donald MacIntyre, Moanalua Gardens, Honolulu. Received April 22, 1904.

10615. *Large Purple.*

Flesh thick, of good, nutty flavor, yellow, and fiberless; seed comparatively small, about one-fourth of fruit; crop medium; pear-shaped; length and diameter over standard (4 by 6 inches). (No. 1.)

10616. *Small Green.*

Flesh not thick and with no nutty flavor, but quite fiberless and rather sweetish; fruit roundish, length in diameter about 4½ inches; late, heavy bearer, constant cropper. (No. 4.)

10617. *Large Green Round.*

Flavor good but not nutty; length and diameter about 5½ by 5 inches; crop uncertain. (No. 3.)

10618. *Large Green.*

Best of all in flavor; flesh smooth, firm, and fiberless; seed small; decidedly bottle-necked; length 7 inches, diameter about 4 inches; late cropper, but crop fairly constant; ripening about middle of June; seed small. (No. 6.)

10619. *Small Green.*

A very early variety, not of best flavor, with fiberless fruit; seed large; not decidedly pear-shaped; good grower and constant cropper; ripening about May 25; earliest variety in Honolulu. (No. 5.)

10620. *Large Green.*

Flavor decidedly nutty and good; flesh yellow, fiberless; length and diameter of fruit about standard; crop light, ripening about the middle of June. (No. 2.)

10621. PHLEUM PRATENSE. **Timothy.**

From Södermanland, Sweden. Presented by Prof. Jakob Eriksson, Experimentalfältet Albano, Stockholm. Received April 20, 1904.

"Sample of seed from crop of 1903 of Swedish timothy for the selection experiments carried on by Mr. John W. Gilmore at the Cornell University Agricultural Experiment Station." (*Fairchild.*)

10622. ARACHIS HYPOGAEA. **Peanut.**

From Japan. Presented by Prof. C. C. Georgeson, director of the Alaska Agricultural Experiment Station, Sitka, Alaska. Received April 18, 1904.

10623. CONVOLVULUS sp. **Japanese morning-glory.**

From Japan. Presented by Prof. C. C. Georgeson, director of the Alaska Agricultural Experiment Station, Sitka, Alaska. Received April 18, 1904.

Seed of Japanese morning-glories, which are known as being the most beautiful varieties in the world.

10624 to 10627.

From Moscow, Russia. Received from Immer & Sons, seedsmen, thru Mr. E. A. Bessey, April 23, 1904.

Seeds, as follows:

10624. AVENA SATIVA. **Oat.**

Belyak. A race of oat bred from the *Svälof* oat and especially valuable in regions of limited rainfall, where it gives large crops when other sorts fail.

10625. PANICUM MILIACEUM. **Broom-corn millet.**

Orenburger. A low sort, especially bred for large yield in dry regions by the owner of a large estate. Not on the market. Obtained by Immer & Sons from the breeder as a personal favor to them.

10626. TRIFOLIUM PRATENSE. **Red clover.**

Red-clover seed from an estate at Kostroma, 150 miles north of Moscow, a region of very cold winters, almost at the edge of clover-seed production.

10627. TRIFOLIUM PRATENSE. **Red clover.**

Red-clover seed from an estate in the northern part of Simbirsk government, a region of cold winters with little snow.

10628. BETA VULGARIS. **Beet.**

From Catania, Sicily. Received thru Mr. Alwin Berger, La Mortola, Ventimiglia, Italy. Received April 21, 1904.

"Sample of beet seed from the director of the Royal Botanic Gardens in Catania for the breeding experiments of Dr. C. O. Townsend and Mr. E. C. Rittue, of this Department." (*Fairchild.*)

10629 and 10630. BETA MARITIMA.

From Sicily. Received thru Dr. Carl Sprenger, Vomero, near Naples, Italy, April 25, 1904.

"Sample of seed from two different localities in Sicily for the breeding experiments of Doctor Townsend and Mr. Rittue, of this Department. No. 10629 was marked 'I' and No. 10630 was marked 'II.' No further information." (*Fairchild.*)

10631. CAESALPINIA BREVIFOLIA. **Algarobillo.**

From New York. Received thru A. Klipstein & Co., 122 Pearl street, New York, N. Y., March 23, 1904.

Pods of the tannin shrub "algarobillo." This is a small tree found growing wild on the foothills of the Andes in Chile. It is said to occur in the driest portions of the arid coast and to produce large quantities of pods very rich in tannin. According to Dr. Louis E. Levi, of the Pfister & Vogel Leather Company, of Milwaukee, Wis., "it is an excellent tanning material, but gives a very light yellow color to the leather, which is partially objectionable, yet I think in mixtures with quebracho, or the like, it would answer the purpose of the tanner. The same contains about 50 per cent of tannin. The tannin material has as yet not been used very much in the United States on account of its objectionable color and easily fermentable properties when in solution. I think this is not very objectionable, as an experienced tanner would be able to get around this fault."

Mr. C. A. Spencer, importer and dealer in tanning materials, 183 Essex street, Boston, Mass., says: "Regarding the value of this material as a tanning agent, we may say its use for the purpose is very limited. While it is very strong in tannin it does not have the filling properties that make it a desirable material for the manufacture of leather, altho there is a limited quantity used in Great Britain and Europe, but from the best information we have been able to obtain, there are only about 1,000 tons yearly of this article available. As compared with other tanning materials grown in the United States, and with quebracho extract, gambier, etc., the price is somewhat higher, which no doubt accounts, to a certain extent, for its limited consumption. We formerly imported this article regularly, but the demand for it has grown much less during the past two years, and there are now practically but two consumers in this country of any size who are using the article in the manufacture of what they call gambier extract."

Mr. William H. Krug, of A. Klipstein & Co., 122 Pearl street, New York, N. Y., says: "We are unable to give you a comparative statement as to the value of this material as compared with the other tanning materials you mention in your letter, as it has been only very recently introduced in this country and has not received more than a very limited application. We believe with you that algarobillo can no doubt be successfully grown in some regions of the United States, and with the growing scarcity of domestic tanning materials, its introduction should prove of considerable interest."

10632. Perilla ocymoides. **Perilla.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company April 25, 1904.

"Sent to replace the former quantity imported (see No. 9892), which failed to germinate." (*Fairchild.*)

10633. Quercus cornea. **Oak.**

From Hongkong, China. Presented by Mr. S. T. Dunn, superintendent of the Botanical and Afforestation Department. Received April 27, 1904.

"Acorns of an evergreen oak, said to be a very showy ornamental as grown on the island of Hongkong, but interesting particularly as bearing acorns as hard shelled as the nuts of the American hickory and which contain a kernel almost as sweet as the sweetest Spanish chestnut. These acorns are sold in the markets of Canton and Hongkong by the ton and are keenly relished not only by the Japanese but by Europeans. Altho difficult to predict how hardy this species will be in America, it is worthy of trial in all regions where citrus fruits can be grown." (*Fairchild.*)

10634. Stachys sieboldii. **Chinese artichoke.**

From London, England. Presented by Mrs. Theo. K. Gibbs, Bethshan, Gibbs avenue, Newport, R. I. Received April 29, 1904.

"These tubers are considered a great delicacy in France, where they are served in the best restaurants and command a good price. They are said to be more delicate than potatoes and are certainly worthy of a permanent place among the new vegetables of this country. They should be planted in rows a foot apart and 6 to 9 inches in the row as soon as all danger from frost is past. They mature their tubers in October, when they may be dug and stored in sand or earth in a cool place. They should be prepared by boiling, steaming, or roasting, and may be served either dry or with melted butter. Fried with salad oil they are considered to be especially delicious. Purchased by Mrs. Gibbs from Peter Barr, of London." (*Fairchild.*)

10635. Pentzia virgata. **Karoobosch.**

From Ward No. 3, Jansenville, South Africa. Received thru Messrs. Lathrop and Fairchild by arrangement with Dr. Charles P. Lounsbury and Mr. A. J. Davison, of the Department of Agriculture, Cape Town, South Africa, May 2, 1904.

"This fodder composite is considered of such great value by the sheep and cattle men of Cape Colony that a separate circular regarding it is being prepared. It is a low-growing, spreading bush which layers naturally when the tips of its branches arch over and touch the ground. In the eastern provinces of Cape Colony, where the rains occur in summer but where long, severe droughts are frequent, this Pentzia is one of the most valuable of all the Karroo plants for fodder purposes. It is especially good for sheep and goats, which eat it down almost to the ground. Tho tested unsuccessfully in Australia, the plant is of such great value that it deserves a thoro trial in the warmest parts of America and should be used in experiments on resuscitation of the barren island ranges of Hawaii." (*Fairchild.*)

10636 to 10669. Mangifera indica. **Mango.**

From Seharunpur, India. Presented by Mr. W. Gollan, superintendent of the Government Botanical Garden, to replace plants that died in transit last year. Received April 26, 1904.

10636 to 10639—Continued.

Plants as follows (notes by Mr. Gollan):

10636. *Arbuthnot.*

Something like *Bombay Yellow*, but a smaller fruit.

10637. *Brindabani.*

Medium-sized, green-colored fruit. Quality only fair.

10638. *Bombay Green.*

Something like *Bombay Yellow*, but fruit green when ripe.

10639. *Bombay Yellow.*

The best mango here. Fruit of medium size and yellowish when ripe.

10640. *Gopal Bhog.*

Medium-sized fruit. Keeps well. Flavor good.

10641. *Khapariah.*

A longish, hooked, pointed fruit. Color yellow, shaded red.

10642. *Salibunda.*

A large fruit. Subacid flavor. Color greenish yellow.

10643. *Strawberry.*

A longish, hooked, pointed fruit. Flavor good.

10644. *Calcuttia Amin.*

A long fruit, hooked, pointed. Has a very thin stone. Flavor good.

10645. *Faizan.*

A large, long fruit. Brownish green. Flavor good.

10646. *Fijri Long.*

A large, longish fruit. Ripens late. Dark green when ripe.

10647. *Fijri Round.*

Similar to above but of roundish shape.

10648. *Hathi Jhul.*

A very large fruit. Flavor good.

10649. *Kachmahua.*

A small fruit, but of good flavor.

10650. *Kakaria.*

A large, long fruit. Dark green. Good flavor.

10651. *Langra Hardoi.*

A medium-sized fruit. Ripens late. Pale yellow flesh. Very rich.

10652. *Surkha.*

A stringy kind, but of very good flavor.

10653. *Tamancha.*

A large fruit. Greenish yellow. Flavor good.

10654. *Bhadauria.*

A small, dark-green fruit. Ripens in September–October.

10655. *Punia.*

A medium-sized, stringy kind. Flavor very good.

10656. *Kistaphal.*

A large fruit. Flesh highly colored and of good flavor.

10636 to 10639—Continued.

10657. *Madras.*

A small fruit. Stringy but of fine flavor.

10658. *Romani.*

A medium-sized fruit. Subacid, of very fine flavor.

10659. *Nucka.*

A long, hooked, pointed fruit. Slightly stringy, but flavor good.

10660. *Chickna.*

A medium-sized fruit. Light yellow, of good flavor.

10661. *Davy's Favorite.*

A long, thin fruit. Yellow, shaded red.

10662. *Gola.*

A large, round, yellow fruit, of very good flavor.

10663. *Pyasee.*

A medium-sized fruit, of subacid flavor. Good.

10664. *Langra Large.*

Similar to *Langra Hardoi*, but larger. Ripens late in August.

10665. *Sundershah.*

A long fruit. Stringy. Flavor peculiar and only liked by some people.

10666. *Kala.*

A longish-shaped fruit. Pale green. Free of stringiness. Good.

10667. *Sanduriah.*

A small, long-shaped fruit. Stringy, but of fine flavor.

10668. *Naji Hahadi Amin.*

A medium-sized, dark-green fruit. Ripens late.

10669. *Sharhati Black.*

A large, round fruit. Dark green. Of very good flavor.

10670 to 10673. NEPHELIUM LITCHI and NEPHELIUM LONGANA. **Litchi and longan.**

From Hing-hua, Fuhkien, China. Received thru Rev. W. N. Brewster, Methodist Episcopal missionary, in the autumn of 1903.

Mr. Brewster says: "They were grafted probably some time in the year 1902. The trees were not more than two years old, I think. With regard to the culture, they are not propagated from the seed, but a ball of earth is tied around a joint of a branch, and when it throws roots out into this ball the branch is cut off on the side next to the trunk, and the little tree is planted. The trees are fertilized by night soil about the time that they are blossoming and also later when the fruits begin to form. When the leaves are too thick, as they generally are in the spring, there is severe pruning done. After the buds are out, these are also thinned; after the blossoms begin to form into fruit they are thinned again. This is very important in order to make a perfect fruit. They must be kept entirely free from frost, and should be planted in a deep soil, i. e., the soil should be soft down many feet below the surface. The *litchi* blossoms early and matures the latter part of July. It is shaped like a strawberry and has the strawberry color and appearance, only the skin is rough and thick and brittle. The seed of the grafted variety is sharp pointed and small, and shriveled up so that the meat is much more abundant than in the ungrafted variety. The meat is white and juicy and a little tart. The *longan* (another species of the same genus) ripens in September. It is round and smooth. It is sweeter than the *litchi*, but the meat has very much the same appearance.

"The other fruit which I brought, the *longan*, is not a variety of the *litchi*, but a distinct fruit, different in color and taste, and matures several weeks later in the season. Many people think it is equal to, and some think it far superior to, the *litchi*. It is cultivated in the same way as the latter, so far as I have observed."

10674. Hordeum tetrastichum. **Four-row barley.**

From Chicago, Ill. Received thru Wahl-Henius Institute of Fermentology, May 3, 1904.

"Minnesota barley which, according to Dr. Robert Wahl's analysis, contains the unusual percentage of 15 to 16 per cent of protein. Doctor Wahl believes that this variety should be experimented with in connection with the testing of low-protein, two-rowed barleys. It is also of interest in connection with the experiments of Mr. H. M. Cottrell, Odebolt, Iowa, on high nitrogen feeding barleys." (*Fairchild.*)

10675 to 10723.

From Teneriffe, Canary Islands. Received thru Hon. Solomon Berliner, United States consul at Teneriffe, May 4, 1904. Transmitted thru the Secretary of State.

A collection of small samples of seeds, many of them indigenous to the Canary Islands, as follows:

10675. Asphodelus ramosus.
10676. Artemisia argentea.
10677. Bosea yervamora.
10678. Bystropogon origanifolius.
10679. Centaurea calcitrapa.
10680. Cineraria populifolia argentea.
10681. Chrysanthemum frutescens.
10682. Convolvulus althaeoides.
10683. Convolvulus floridus.
10684. Cytisus glabratus.
10685. Cytisus palmensis.
10686. Delphinium staphisagria.
10687. Digitalis canariensis.
10688. Dracaena draco.
10689. Dracunculus canariensis.
10690. Echium formosum.
10691. Echium simplex.
10692. Echium strictum.
10693. Euphorbia canariensis.
10694. Euphorbia regis-jubae.
10695. Ferula linkii.
10696. Galilea juncea.
10697. Genista canariensis.
10698. Genista monosperma.
10699. Gladiolus segetum.
10700. Gonospermum fruticosum.
10701. Gonospermum revolutum.
10702. Hypericum floribundum.
10703. Lavandula abrotanoides.
10704. Leucophae candidissima.
10705. Lotus canariensis floribunda.
10706. Mesembryanthemum crystallinum.
10707. Oenothera rosea.
10708. Parietaria arborea.
10709. Periploca laevigata.
10710. Pinus canariensis.
10711. Plocama pendula.
10712. Psoralea bituminosa.
10713. Ranunculus canariensis.
10714. Rhamnus crenulata.
10715. Rhodocistus berthelotianus.
10716. Rubia fruticosa.
10717. Rumex lunaria.
10718. Sempervivum tabulaeforme.
10719. Statice brassicaefolia.
10720. Statice pectinata.
10721. Tamus edulis.
10722. Teucrium hyssopifolium.
10723. Verbena bonariensis.

10724. Vicia faba. **Horse bean.**

From Cairo, Egypt. Received thru Mr. George P. Foaden, secretary of the Khedivial Agricultural Society.

"Roots of this forage plant collected shortly before harvest time, dried in the shade, and mailed in tin mailing cases. For Doctor Moore's experiments in the isolation of the micro-organism which causes the tubercles." (*Fairchild.*)

10725. Medicago orbicularis.

From Algeria. Secured by Mr. Thomas H. Kearney in 1902. Turned over to this office by Mr. C. S. Scofield on May 5, 1904, to be numbered and sent to the Plant Introduction Garden at Chico, Cal., for propagation.

10726. Phleum pratense. **Timothy.**

From Helsingfors, Finland. Received thru Mr. C. T. Ward, Finnish Horticultural Society, May 6, 1904.

Sample of timothy seed grown in Finland.

10727 to 10750.

From Monte, Grand Canary. Presented by Mr. Alaricus Delmard. Received May 6, 1904.

A collection of small samples of seeds of interesting plants growing in the Canary Islands, as follows:

10727. Adenocarpus frankenioides.
10728. Bosea yervamora.
10729. Bystropogon origanifolius.
10730. Cedronella canariensis.
10731. Chrysanthemum frutescens.
10732. Clethra arborea.
10733. Isolepis canariensis.
10734. Cytisus palmensis.
10735. Delphinium staphisagria.
10736. Digitalis canariensis.
10737. Galilea juncea.
10738. Gonospermum revolutum.
10739. Leucophae candidissima.
10740. Mesembryanthemum crystallinum.
10741. Oenothera rosea.
10742. Parietaria arborea.
10743. Periploca laevigata.
10744. Rhodocistus berthelotianus.
10745. Rubia fruticosa.
10746. Statice pectinata.
10747. Tamus edulis.
10748. Teucrium hyssopifolium.
10749. Trixago versicolor.
10750. Verbena bonariensis.

10751. Fragaria sp. **Strawberry.**

From Garrettsville, Ohio. Presented by the originator, Mr. George J. Streator, for testing, on condition that no distribution is made. Received May 9, 1904.

Cardinal.

10752. Ervum lens. **Lentil.**

From Cairo, Egypt. Received thru Mr. George P. Foaden, secretary of the Khedivial Agricultural Society, May 6, 1904.

Saida. "A variety of an important crop grown extensively in Upper Egypt." (*Fairchild.*)

10753. VICIA FABA. **Horse bean.**

From Valetta, Malta. Received thru Dr. J. Borg, San Antonio Gardens, May 12, 1904.

Roots of a horse bean from the island of Malta, which, according to Doctor Borg, were from plants already in pod. Doctor Borg remarks that the nodules are not so plump as they were when the plant was just beginning to set fruit, and that the roots came from the best bean-producing lands in Malta, lands entirely free from orobanche, which is a bad weed in the bean fields and their worst enemy. "But for its ravages the bean would be the most profitable crop for agriculture." (*Borg.*)

10754. HORDEUM TETRASTICHUM. **Four-row barley.**

Originally from the Agricultural Experiment Station at Madison, Wis. Received thru the Wahl-Henius Institute of Fermentology, Chicago, Ill., May 9, 1904.

Oderbrucker. "A variety of barley which, upon analysis, proves to contain 15 per cent of protein matter. Dr. Robert Wahl considers it essential that this type of barley with high nitrogen content be experimented with for beer-making purposes, and Mr. H. M. Cottrell, of Odebolt, Iowa, is interested in it as a type especially adapted for feeding purposes." (*Fairchild.*)

10755 and 10756. CAPSICUM ANNUUM. **Paprika pepper.**

From Budapest, Hungary. Received thru Hon. Frank D. Chester, United States consul at Budapest, May 4, 1904.

Seeds of the two varieties of *paprika* which were requested by the Botanical Drug Company, of Bridgeport, Ala.

10755. *Szeged rose.*

From Szeged, Hungary.

10756. *Hungarian.*

From near Debreczen, Hungary.

"It is worthy of note that the best varieties of paprika are not imported into this country and that the highest priced, called 'Edelsüss,' brings 6 crowns a pound, while that generally imported into America is quoted at 1.65 crowns. There would seem to be a chance for the paprika industry in America." (*Fairchild.*)

10757 to 10958. PHOENIX DACTYLIFERA. **Date.**

From Biskra, Algeria. Purchased from Monsieur Colombo by correspondence conducted by Mr. W. T. Swingle. Plants paid for by Mr. E. A. Bessey, who superintended the packing and shipping to the United States. Received May 17, 1904.

10757 to 10832. *Deglet Noor.* From Ourlana oasis.

Among these palms there may be as many as four palms that are not *Deglet Noors,* since four lost their numbers and were confused with this lot of *Deglet Noors.* Nos. 10841, 10883, 10902, and 10904 are doubtful, and are probably *Deglet Noors.* The varieties of these four misplaced suckers are as follows: *Tezerharit, Abd en noor, Sokria,* and *Iteema.* These varieties are mostly quite unlike the *Deglet Noor* and can probably be recognized when the offshoots get of some size.

10833. *Deglet Beida.* From Ourlana oasis.

10834. *Deglet Beida.* From Ourlana oasis.

10835. *Deglet Beida.* From Ourlana oasis.

10836. *Tenaseen.* From Ourlana oasis.

10837. *Tenaseen.* From Ourlana oasis.

10838. *Tenaseen.* From Ourlana oasis.

10839. *Tezerharit.* From Ourlana oasis.

10840. *Tezerharit.* From Ourlana oasis.

10841. (No label.)

10757 to 10958—Continued.

10842. *Oreloo.* From Ourlana oasis.
10843. *Oreloo.* From Ourlana oasis.
10844. *Oreloo.* From Ourlana oasis.
10845. *Sayba Boo Dra.* From Ourlana oasis.
10846. *Sayba Boo Dra.* From Ourlana oasis.
10847. *Sayba Boo Dra.* From Ourlana oasis.
10848. *Sayba Boo Dra.* From Ourlana oasis.
10849. *Tafazweent.* From Ourlana oasis.
10850. *Tafazweent.* From Ourlana oasis.
10851. *Tafazweent.* From Ourlana oasis.
10852. *Taoorkhet.* From Ourlana oasis.
10853. *Taoorkhet.* From Ourlana oasis.
10854. *Taoorkhet.* From Ourlana oasis.
10855. *Taty.* From Ourlana oasis.
10856. *Taty.* From Ourlana oasis.
10857. *Taty.* From Ourlana oasis.
10858. *Timjoohert.* From Ourlana oasis.
10859. *Timjoohert.* From Ourlana oasis.
10860. *Timjoohert.* From Ourlana oasis.
10861. *Temkhookh.* From Ourlana oasis.
10862. *Temkhookh.* From Ourlana oasis.
10863. *Temkhookh.* From Ourlana oasis
10864. *Takadet.* From Ourlana oasis.
10865. *Takadet.* From Ourlana oasis.
10866. *Takadet.* From Ourlana oasis.
10867. *Taremoont.* From Ourlana oasis.
10868. *Taremoont.* From Ourlana oasis.
10869. *Taremoont.* From Ourlana oasis.
10870. *Nakhelet Mzian.* From Ourlana oasis.
10871. *Nakhelet Mzian.* From Ourlana oasis.
10872. *Nakhelet Mzian.* From Ourlana oasis.
10873. *Adebet et Teen.* From Ourlana oasis.
10874. *Adebet et Teen.* From Ourlana oasis.
10875. *Adebet et Teen.* From Ourlana oasis.
10876. *Makelet el Leef.* From Ourlana oasis.
10877. *Makelet el Leef.* From Ourlana oasis.
10878. *Makelet el Leef.* From Ourlana oasis.
10879. *Nakhelet Feraoon.* From Ourlana oasis.
10880. *Nakhelet Feraoon.* From Ourlana oasis.
10881. *Nakhelet Feraoon.* From Ourlana oasis.
10882. *Abd en Noor.* From Ourlana oasis.
10883. (No label.)
10884. *Abd en Noor.* From Ourlana oasis.
10885. *Horra.* From Fougala oasis.

10757 to 10958—Continued.

10886. *Horra.* From Fougala oasis.
10887. *Horra.* From Fougala oasis.
10888. *Rhazee.* From Fougala oasis.
10889. *Rhazee.* From Fougala oasis.
10890. *Rhazee.* From Fougala oasis.
10891. *Toory.* From Fougala oasis.
10892. *Toory.* From Fougala oasis.
10893. *Toory.* From Fougala oasis.
10894. *Oogbales.* From Fougala oasis.
10895. *Oogbales.* From Fougala oasis.
10896. *Oogbales.* From Fougala oasis.
10897. *Sokria.* From Biskra oasis.
10898. *Boo Halas.* From Biskra oasis.
10899. *Sokria.* From Biskra oasis.
10900. *Sokria.* From Biskra oasis.
10901. *Sokria.* From Biskra oasis.
10902. (No label.)
10903. *Iteema.* From Biskra oasis.
10904. (No label.)
10905. *M' Kentishee Degla.* From Biskra oasis.
10906. *M' Kentishee Degla.* From Biskra oasis.
10907. *M' Kentishee Degla.* From Biskra oasis.
10908. *Retbet Hafsia.* From Biskra oasis.
10909. *Retbet Hafsia.* From Biskra oasis.
10910. *Getara.* From Biskra oasis.
10911. *Getara.* From Biskra oasis.
10912. *Zoozia.* From Biskra oasis.
10913. *Retbet Regaya.* From Biskra oasis.
10914. *Retbet Regaya.* From Biskra oasis.
10915. *Retbet Regaya.* From Biskra oasis.
10916. *Mnooar* (male). From Filiache oasis.
10917. *Retbet Haloo.* From Filiache oasis.
10918. *Retbet Haloo.* From Filiache oasis.
10919. *Retbet Haloo.* From Filiache oasis.
10920. *Halooa.* From Biskra oasis.
10921. *Halooa.* From Biskra oasis.
10922. *Halooa.* From Biskra oasis.
10923. *Zerza.* From Biskra oasis.
10924. *Zerza.* From Biskra oasis.
10925. *Zerza.* From Biskra oasis.
10926. *Boo Halas.* From Biskra oasis.
10927. *Boo Halas.* From Biskra oasis.
10928. *Boo Halas.* From Biskra oasis.
10929. *Khodry.* From Biskra oasis.

10757 to 10958—Continued.

10930. *Khodry.* From Biskra oasis.
10931. *Khodry.* From Biskra oasis.
10932. *Lookzy.* From Filiache oasis.
10933. *Lookzy.* From Filiache oasis.
10934. *Rhazee.* From Filiache oasis.
10935. *Rhazee.* From Filiache oasis.
10936. *Rhazee.* From Filiache oasis.
10937. *Mnooar* (male). From Filiache oasis.
10938. *Mnooar* (male). From Filiache oasis.
10939. *Iteem Joher.* From Filiache oasis.
10940. *Iteem Joher.* From Filiache oasis.
10941. *Iteem Joher.* From Filiache oasis.
10942. *Goondy.* From Filiache oasis.
10943. *Goondy.* From Filiache oasis.
10944. *Goondy.* From Filiache oasis.
10945. *Lookzy.* From Filiache oasis.
10946. *Ahmar Msab.* From Chetma oasis.
10947. *Ahmar Msab.* From Chetma oasis.
10948. *Ahmar Msab.* From Chetma oasis.
10949. *Retbet Abdala.* From Chetma oasis.
10950. *Retbet Abdala.* From Chetma oasis.
10951. *Retbet Abdala.* From Chetma oasis.
10952. *Sokria.* From Chetma oasis.
10953. *Sokria.* From Chetma oasis.
10954. *Sokria.* From Chetma oasis.
10955. *Nesheen.* From Chetma oasis.
10956. *Nesheen.* From Chetma oasis.
10957. *Nesheen.* From Chetma oasis.
10958. (No label.)

10959. SECHIUM EDULE. **Chayote.**

From New Orleans, La. Received thru the J. Steckler Seed Company (Limited). Received May 10, 1904.

"Fruits of the commercial variety common in New Orleans markets." (*Fairchild.*)

10960. MANGIFERA INDICA. **Mango.**

From Tahiti. Received April 26, 1904.

"Seed of a fruit of a variety of mango brought by the captain of the steamer *Mariposa* to San Francisco. The captain declares it to be a superior variety, very free from fiber and very luscious. A fruit of this variety was eaten by Mr. George W. Oliver and he declares it an excellent variety. The captain says there are many trees of this variety in Tahiti. Owing to its large size and freedom from fiber it may prove valuable." (*Fairchild.*)

10961. (Undetermined.)

From Arcelia, Guerrero, Mexico. Presented by Mr. Federico Chisolm. Received May 5, 1904.

A small packet of flower seed. Flower described by Mr. Chisolm as follows: "Perennial blue flower, yellow center. Twelve inches to 20 inches. Blooms June, July, August, December, January, and February. Desirable for bedding."

10962. VICIA FABA. **Horse bean.**

From Tunis, Tunis. Received thru Mr. R. Gagey, Agricultural College, Tunis, May 17, 1904.

"Roots of horse bean, dried in the shade, for material from which to secure the micro-organism which forms the nitrogen-collecting nodules." (*Fairchild.*)

10963. LILIUM NEILGHERRENSE. **Neilgherry lily.**

From Utakamand, India. Presented by Mr. H. F. Macmillan, curator, Royal Botanic Garden, Peradeniya, Ceylon, thru Mr. Fairchild, May 20, 1904.

10964. GOSSYPIUM TOMENTOSUM. **Cotton.**

From Honolulu, Hawaii. Presented by Mr. Jared G. Smith, special agent in charge of the Agricultural Experiment Station, May 18, 1904.

10965. MUSA SAPIENTUM. **Banana.**

From Grand Canary, Canary Islands. Received thru Mr. Alaricus Delmard, May 20, 1904.

"Suckers of the so-called 'Chinese' banana, commonly grown in the Canary Islands and shipped to England in large quantities. It is reported that this variety of banana brings a higher price on the London market than the Jamaican or Central American varieties." (*Fairchild.*)

10966. LILIUM PHILIPPINENSE. **Lily.**

From Manila, P. I. Received from Mr. Elmer D. Merrill, botanist of the Bureau of Government laboratories, Manila, thru Capt. George P. Ahern, May 28, 1904.

"*Benguet* lily, introduced especially for experiments in hybridizing lilies." (*Fairchild.*)

10967. FURCRAEA FOETIDA.

From Port Luis, Mauritius. Presented by Mr. John W. Holway, United States vice-consul, to Mr. L. H. Dewey. Received May 10, 1904.

"My principal object in introducing them is to determine whether there is any difference between Porto Rico 'maguey' and Mauritius 'alser vert.'" (*Dewey.*)

10968. MAGNOLIA PUMILA. **Magnolia.**

From Canton, China. Presented by Mr. Thomas Griffith. Received May 23, 1904.

"Plants of an ornamental known in Canton as 'Yei-hap.' Said by Captain Bernadou, of the United States Navy, to be a great favorite among the Chinese, the flowers, which are fragrant, being used for boutonnieres. Occasionally cultivated in the South." (*Fairchild.*)

10969 to 10974.

Presented by Mr. Frederick Cramer, thru Dr. L. O. Howard. Received May 23, 1904.

10969. (Undetermined.) **Cactus.**

From the City of Mexico, Mexico.

"A low-growing species of cactus, the small berry-like cactus fruit of which is said to be edible. Probably comes from Michoacan." (*Fairchild.*)

10970. CITRUS AURANTIUM. **Orange.**

From Atotonilco, State of Jalisco, near Guadalajara, Mexico.

Telon. Said to be the very best seedling orange raised in southern Mexico. "Like a lemon but round like an apple. Sweet tasting." (*Fairchild.*)

10971.

From the City of Mexico, Mexico.

A collection of seeds secured by Mr. Cramer from all over Mexico, mostly of ornamental flowers, shrubs, and trees.

10969 to 10974—Continued.

10972. (Undetermined.)

From Guadalajara, Mexico.

Seeds of a medicinal plant.

10973. Cicer arietinum. **Chick-pea.**

From Mexico.

10974. Cicer arietinum. **Chick-pea.**

From Jalisco.

"Grown on dry, arid lands in the hotter portions of Mexico without irrigation. The weevils which attack this chick-pea are said to be injurious to other cereals. These seed should be carefully fumigated. Raised in Mexico on heavy, dry, black soil." (*Fairchild.*)

10975. Castilla sp. (?).

From Chiapas, Mexico. Presented by Mr. James Maunder, thru Dr. L. O. Howard. Received May 23, 1904.

Mr. Maunder considers this a valuable variety.

10976 and 10977.

From Quito, Ecuador. Presented by Mr. Luis Sodiro, S. J., a botanist and student of Ecuador agriculture. Received May 25, 1904.

10976. Festuca pabularis. **10977.** Poa mulalensis.

"Mr. Sodiro remarks that Nos 10976 and 10977 are some of the most remarkable forage grasses of the mountain region of Ecuador. They are likely to prove of value in certain portions of this country." (*Fairchild.*)

10978. Persea gratissima. **Avocado.**

From Guatemala. Presented by Hon. Alfred A. Winslow, consul-general, Guatemala, Central America. Received May 23, 1904.

10979 to 10999.

From Hsi-an, China. Presented by Mr. W. W. Simpson in exchange for seeds of American vegetables sent him in December, 1903. Received May 23, 1904.

Seed as follows:

10979. Cannabis sativa. **Hemp.**

10980.

A mixture, but labeled "Parsley."

10981. Brassica pe-tsai. **Pe-tsai cabbage.**

10982. Brassica alba. **White mustard.**

10983. Brassica alba. **White mustard.**

10984. Brassica pe-tsai. **Pe-tsai cabbage.**

10985. Hordeum vulgare. **Barley.**

10986. Pisum sp. **Pea.**

10987. Pisum sativum. **Pea.**

10988. Allium cepa. **Onion.**

10989. Beta vulgaris. **Beet.**

10990. Raphanus sativus. **Spring radish.**

10991. Vicia faba. **Broad bean.**

10992. Triticum vulgare. **Winter wheat.**

10979 to 10999—Continued.

10993. Trigonella foenum-graecum. **Fenugreek.**

10994. Brassica pe-tsai. **Pe-tsai cabbage.**

10995. Apium graveolens. **Celery.**

10996. Lactuca sativa. **Lettuce.**

10997. Brassica pe-tsai. **Pe-tsai cabbage.**

10998. Lactuca sativa. **Lettuce.**

10999. Lactuca sativa. **Lettuce.**

11000. Phleum pratense. **Timothy.**

From Tokyo, Japan. Received from Mr. T. Watase, president of the Tokyo Plant, Seed, and Implement Company, thru Dr. Oscar Loew, Imperial University, Tokyo, May 31, 1904.

"Seed from Hakkaido, the northern island of Japan." (*Fairchild.*)

11001. Nicotiana tabacum. **Tobacco.**

From Sao Paulo, Brazil. Secured thru Dr. Horace M. Lane, president of the Mackenzie College. Received May 23, 1904.

Criolo.

11002. Pancratium sp.

From Arcelia, Guerrero, Mexico. Presented by Mr. Federico Chisolm. Received June 6, 1904.

11003. Phoenix dactylifera. **Date.**

From Biskra, Algeria. Received thru Monsieur Colombo by Mr. E. F. Chumard, of Imperial, Cal., Mr. E. A. Bessey, of this Department, acting as agent in the transaction, the previous correspondence having been conducted by Mr. Walter T. Swingle.

Deglet Noor.

11004 to 11009.

From Arcelia, Guerrero, Mexico. Received thru Mr. Federico Chisolm, June 15, 1904.

A collection of native Mexican seeds and bulbs as follows:

11004. Psidium molle. **Guayabilla.**

Strawberry-flavored guayabillas.

11005. Psidium molle. **Guayabilla.**

From fruits having at least four distinct flavors.

11006. Spondias purpurea. **Ciruela.**

11007. Spondias purpurea. **Ciruela.**

11008. Lilium sp. (?). **Scarlet lily.**

11009. (Unidentified.)

11010 to 11017.

From Sepacuite, Guatemala. Received thru Mr. O. F. Cook, June 6, 1904.

11010. Ananas sativus. **Pineapple.**

A spiny-leaved pineapple peculiar to this immediate neighborhood, where it grows and ripens at a higher and cooler elevation than any other sort. The leaves are very broad and drooping, giving a very characteristic appearance. The flesh is yellow, and of moderately good quality, inferior to the best hot-country sorts, but better than the latter when grown in these humid highlands. It might be of use in the mountains of Porto Rico, Hawaii, or the Philippines.

11010 to 11017—Continued.

11011. Ananas sativus. **Pineapple.**

A smooth variety, not native here. Perhaps the Smooth Cayenne.

11012 to 11017. Chamaedorea spp. **Palm.**

A collection of small palms which will be identified later.

11018. Trifolium pratense. **Red clover.**

From Toledo, Ohio. Received thru S. W. Flower & Co., June 10, 1904.

11019. Trifolium hybridum. **Alsike.**

From Toledo, Ohio. Received thru S. W. Flower & Co., June 10, 1904.

11020. Prunus sp. **Plum.**

From Moody, Ala. Received thru Mr. D. S. Jones, June 9, 1904.

Yanner. "Bud sticks of a variety of wild plum which, according to Mr. Jones, ripens in Alabama about September 10. If house ripened the plums resemble in taste the *Wild Goose*, but are meatier. When taken from the tree they are bitter, but when mellowed they are excellent. This is a wild sort, probably of the family of the *Wild Goose*, and ripening so late that they are considered valuable for culinary purposes. Altho possibly known to other nurserymen, Mr. Jones does not find them cataloged by any nursery firm. The fruits are medium in size, deep red in color, and they are peculiarly free from disease, seldom being attacked by the curculio." (*Fairchild.*)

11021 to 11033.

From Buitenzorg, Java. Presented by Doctor Treub. Received June 15, 1904.

As follows:

11021. Calophyllum hasskarlii.

11022. Calophyllum kunstleri longifolium.

11023. Calophyllum spectabile.

11024. Calophyllum spectabile ceramicum.

11025. Calophyllum spectabile miquelli.

11026. Calophyllum venulosum.

11027. Garcinia dioica.

11028. Garcinia dulcis pyriformis.

11029. Garcinia dulcis sylvestris.

11030. Garcinia fusca.

11031. Garcinia loureiri.

11032. Garcinia xanthochymus.

11033. Mesua ferrea.

11034. Prunus cerasus. **Cherry.**

From Moscow, Russia. Received thru Mr. E. A. Bessey, June 15, 1904.

Vladimir. Two-year-old trees (seedlings) of this resistant variety of cherry from the trial gardens of Immer & Son, Moscow.

11035 to 11038. Nicotiana tabacum. **Tobacco.**

From Sao Paulo, Brazil. Received thru Dr. Horace M. Lane, president of the Mackenzie College, June 9, 1904.

11035 to 11038—Continued.

Seed of four varieties of tobacco commonly grown in Brazil, as follows:

11035. *Americano fino.*

Grown in the interior of Bahia. The original stock probably came from the United States.

11036. *Bahiano.*

A native variety grown in Bahia, from which the celebrated Bahia leaf is made.

11037. *Santa Cruz.*

A native tobacco grown in Rio Grande do Sul. This sort is highly esteemed.

11038. *Turco.*

Grown around Sao Paulo for many years. The variety is of Asiatic origin.

11039 to 11119.

From Abyssinia, Africa. Received thru Hon. Robert P. Skinner, commissioner of the United States to Abyssinia, June 3, 1904.

"A collection of seeds made for Mr. Skinner, under his direction, by M. Eugène Carette Bouvet, of the Diré-Daoua, Voie de Djibouti, Côte Française des Somalis. This collection represents, in the main, crops cultivated by the Abyssinians." (*Fairchild*).

11039. Triticum durum.
11040. Hordeum sp.
11041. Hordeum sp.
11042. Hordeum sp.
11043. Hordeum sp.
11044. Hordeum sp.
11045. Gossypium sp.
11046. Gossypium sp.
11047. Gossypium sp.
11048. Gossypium sp.
11049. Triticum sp.
11050. Triticum sp.
11051. Triticum sp.
11052. Triticum sp.
11053. Triticum sp.
11054. Triticum sp.
11055. Phaseolus vulgaris.
11056. Phaseolus vulgaris.
11057. Phaseolus vulgaris.
11058. Andropogon sorghum.
11059. Andropogon sorghum.
11060. Andropogon sorghum.
11061. Andropogon sorghum.
11062. Andropogon sorghum.
11063. Andropogon sorghum.
11064. Andropogon sorghum.
11065. Andropogon sorghum.
11066. Andropogon sorghum.
11067. Andropogon sorghum.
11068. Ricinus sp.
11069. Ricinus sp.
11070. Ricinus sp.
11071. Ricinus sp.
11072. Ricinus sp.
11073. Ricinus sp.
11074. Vigna sinensis.
11075. Vigna sinensis.
11076. Vigna sinensis.
11077. Coriandrum sativum.
11078. Coffea sp.
11079. Linum usitatissimum.
11080. Ervum lens.
11081. Brassica oleracea.
11082. Andropogon sorghum.
11083. Andropogon sorghum.
11084. Andropogon sorghum.
11085. Andropogon sorghum.
11086. (Unidentified.)
11087. Trigonella foenum-graecum.
11088. Trigonella foenum-graecum.
11089. (Unidentified.)
11090. Vigna sinensis.
11091. Vigna sinensis.
11092. (Unidentified.)
11093. Guizotia oleifera.

11039 to 11119—Continued.

11094. Triticum dicoccum.
11095. Cicer arietinum.
11096. Lepidium sativum.
11097. Pisum sativum.
11098. Phaseolus radiatus.
11099. Triticum durum.
11100. Eleusine coracana.
11101. Coriandrum sativum.
11102. Vicia faba.
11103. Vicia faba.
11104. (Unidentified.)
11105. Ervum lens.
11106. Zea mays.
11107. Guizotia oleifera.
11108. Capsicum frutescens.
11109. Cicer arietinum.
11110. Cicer arietinum.
11111. Pisum sp.
11112. Pisum sp.
11113. Linum usitatissimum.
11114. Centaurea sp.
11115. Carthamus tinctorius.
11116. Hordeum sp.
11117. Eragrostis abyssinica.
11118. Eragrostis abyssinica.
11119. Andropogon sorghum.

11120 to 11127.

From Santa Barbara, Cal. Received thru Dr. F. Franceschi, June 20, 1904.

A collection of plants for experimental work carried on in cooperation with Prof. Haven Metcalf, of the South Carolina Agricultural Experiment Station, Clemson, S. C.

11120. Passiflora coerulea.
11121. Passiflora edulis.
11122. Passiflora pfordii.
11123. Passiflora manicata.
11124. Passiflora acerifolia.
11125. Passiflora ligularis.
11126. Passiflora alata.
11127. Tacsonia exoniensis.

11128. Phoenix dactylifera. Date.

From Fayum, Egypt. Received thru Mr. H. A. Rankin, of the Egyptian Market Company (Limited), June 21, 1904.

Wahi.

11129 to 11236.

Miscellaneous seed on hand July 1, 1904. Numbered to facilitate the keeping of record of distribution.

11129. Agropyron tenerum. **Slender wheat-grass.**

From Northrup, King & Co., Minneapolis, Minn.

11130. Agrostis alba. **Redtop.**

11131. Andropogon halepensis. **Johnson grass.**

11132 to 11136. Andropogon sorghum. **Sorghum.**

11132. *Colman.*
11133. *Amber.*
11134. *Folger.*
11135. *Kansas Orange.*
11136. *Collier.*

11137. Andropogon sorghum. **Kafir corn.**

White.

11138. Andropogon sorghum. **Milo.**

White.

11139. Anthoxanthum odoratum. **Sweet vernal grass.**

11129 to 11236—Continued.

11140. ARACHIS HYPOGAEA. **Peanut.**

Spanish. Received March 25, 1904.

11141. ARRHENATHERUM ELATIUS. **Tall meadow oat-grass.**

11142. ATRIPLEX SEMIBACCATA. **Saltbush.**

Received from the California Experiment Station.

11143. ARRHENATHERUM ELATIUS. **Tall meadow oat-grass.**

11144 to 11151. AVENA SATIVA. **Oat.**

11144. *Banner.*
11145. *Burt.*
11146. *California White.*
11147. *Dakota Gray.*
11148. *Green Mountain.*
11149. *Hopetown.*
11150. *Improved American.*
11151. *Swiss White.*

11152 to 11163. BETA VULGARIS. **Sugar beet.**

11152. *Kleinwanzleben.*

From Utah Sugar Refining Company, Lehi, Utah. (Seed Lab. No. 12846.)

11153. *Kleinwanzleben.*

From H. C. & J. B. Agnew, Agnew, Cal. (Seed Lab. No. 12848.)

11154.

From E. H. Morrison, Fairfield, Wash. (Seed Lab. No. 13007.)

11155. *Kleinwanzleben Nachzucht.*

From H. Bennecke & Son, Germany.

11156.

From the Alma Sugar Company, Alma, Mich.

11157.

From France.

11158. *Kleinwanzleben.*

11159. *Mangel-wurzel.*

11160. *Kleinwanzleben.* (Michigan grown.)

From Pennsylvania Sugar Refinery.

11161. *Hoerning's Improved Kleinwanzleben Special Elite.*

11162.

From Utah Sugar Company, Lehi, Utah. Crop of 1901. (Seed Lab. No. 12756.)

11163.

From H. C. & J. B. Agnew, Agnew, Cal. (Seed Lab. No. 12790.)

11164. ANDROPOGON SORGHUM. **Broom corn.**

Tennessee Evergreen.

11165. BRASSICA NAPUS. **Rape.**

Dwarf Essex.

11166. BROMUS INERMIS. **Smooth brome-grass.**

11167. BROMUS UNIOLOIDES. **Rescue grass.**

From J. M. Thorburn & Co., 36 Cortlandt street, New York, N. Y.

11168. CHAETOCHLOA ITALICA. **German millet.**

11169. CAPRIOLA DACTYLON. **Bermuda grass.**

11170. CICER ARIETINUM. **Chick-pea.**

11129 to 11236—Continued.

11171. DACTYLIS GLOMERATA. **Orchard grass.**

11172. EUCHLAENA MEXICANA. **Teosinte.**

11173. FAGOPYRUM ESCULENTUM. **Buckwheat.**

11174. FESTUCA ELATIOR. **Tall fescue.**

11175. FESTUCA HETEROPHYLLA. **Various-leafed fescue.**

11176. FESTUCA OVINA. **Sheep's fescue.**

11177. FESTUCA PRATENSIS. **Meadow fescue.**

11178. FESTUCA RUBRA. **Red fescue.**

11179. GLYCINE HISPIDA. **Soy bean.**

Early Black.

11180. GLYCINE HISPIDA. **Soy bean.**

Yellow.

11181 to 11186. GOSSYPIUM BARBADENSE. **Egyptian cotton.**

- **11181.** *Mit Afifi.* (Plant Breeding No. 56.)
- **11182.** *Jannovitch.* (Plant Breeding No. 63.)
- **11183.** *Ashmuni.* (Plant Breeding No. 59.)
- **11184.** *Mit Afifi.* (Plant Breeding No. 55.)
- **11185.** *Ashmuni.* (Plant Breeding No. 62.)
- **11186.** *Ashmuni.* (Plant Breeding No. 61.)

11187 to 11190. GOSSYPIUM sp. **Cotton.**

- **11187.** (No label.)
- **11188.** *King.*
- **11189.** *Rivers.*
- **11190.** *Upland.*

11191. HELIANTHUS ANNUUS. **Sunflower.**

Received from the Division of Chemistry in 1901.

11192. HORDEUM VULGARE. **Barley.**

Manchurian. From the Minnesota Agricultural Experiment Station. (Minn. No. 105.)

11193. HORDEUM VULGARE. **Barley.**

Tennessee Winter. From the Tennessee Agricultural Experiment Station.

11194. LATHYRUS STIPULARIS.

11195. LATHYRUS AZUREUS.

11196. LATHYRUS COCCINEUS.

11197. LATHYRUS SATIVUS. **Bitter vetch.**

11198. LATHYRUS SATIVUS. **Bitter vetch.**

Received from C. C. Morse & Co., Santa Clara, Cal.

11199. LATHYRUS SATIVUS. **Bitter vetch.**

From Agricultural Experiment Station, Berkeley, Cal.

11200. LATHYRUS TINGITANUS. **Tangier scarlet pea.**

From C. C. Morse & Co., Santa Clara, Cal.

11201. LESPEDEZA STRIATA. **Japan clover.**

11202. LOLIUM ITALICUM. **Italian rye-grass.**

11203. LOLIUM PERENNE. **Perennial rye-grass.**

11204. LOTUS CORNICULATUS. **Bird's-foot trefoil.**

11129 to 11236—Continued.

11205. Lupinus affinis. **Blue lupine.**

11206. Lupinus angustifolius. **Blue lupine.**

11207. Lupinus luteus. **Yellow lupine.**

11208. Medicago denticulata. **Bur clover.**

11209. Medicago sativa. **Alfalfa.**

11210. Medicago sativa. **Alfalfa.**

11211. Medicago sativa. **Alfalfa.**

Turkestan. From Henry Nungesser & Co., New York, N. Y.

11212. Melilotus alba. **Sweet, or Bokhara, clover.**

11213. Mucuna utilis. **Velvet bean.**

11214. Pennisetum typhoideum. **Pearl millet.**

11215. Phleum pratense. **Timothy.**

11216. Pisum arvense. **Canada field pea.**

11217. Poa pratensis. **Kentucky bluegrass.**

11218. Secale cereale. **Rye.**

11219. Secale cereale. **Rye.**

Winter.

11220. Chaetochloa italica. **Hungarian grass.**

11221. Trifolium alexandrinum. **Berseem.**

From C. C. Morse & Co., Santa Clara, Cal.

11222. Trifolium hybridum. **Alsike.**

11223. Trifolium incarnatum. **Crimson clover.**

11224. Trifolium pratense. **Red clover.**

11225. Trifolium repens. **White clover.**

11226 to 11229. Triticum vulgare. **Wheat.**

11226. *Zimmerman.*
11227. *Budapest.*
11228. *Preston* (Spring).
11229. *Turkey.*

From the Agricultural Experiment Station, Manhattan, Kans.

11230. Vicia bithynica.

11231. Vicia fulgens. **Scarlet vetch.**

11232. Vicia narbonnensis. **Narbonne vetch.**

11233. Vicia sativa. **Common vetch.**

11234. Vicia villosa. **Hairy vetch.**

11235. Vicia villosa. **Hairy vetch.**

Inoculated April 16, 1904.

11236. Vigna sinensis. **Cowpea.**

Warren. From Professor Newman, Agricultural Experiment Station, Fayetteville, Ark.

11237 to 11251. Beta Vulgaris. **Sugar beet.**

Seed from 1903 crop remaining on hand July 1, 1904, after the distribution made by Mr. J. E. W. Tracy. Previous distribution recorded under these numbers.

11237. *Kleinwanzleben.*

From Klein Wanzleben Sugar Company, Klein Wanzleben, Germany. (Tracy's No. 12853.)

11238. *Schreiber's Specialität.*

From G. Schreiber & Sons, Nordhausen, Germany. (Tracy's No. 12854.)

11237 to 11251—Continued.

11239. From Lehi Sugar Company, Lehi, Utah. (Tracy's No. 12856.)

11240. *Elite Kleinwanzleben.*
From the Empire Sugar Company, Lyons, N. Y. Originally from Dippe Brothers, Quedlinburg, Germany. (Tracy's No. 12857.)

11241. *Kleinwanzleben.*
From the Empire Sugar Company, Lyons, N. Y. Originally from Kuhn & Co., Naarden, Holland. (Tracy's No. 12858.)

11242. *Kleinwanzleben.*
From the Empire Sugar Company, Lyons, N. Y. Originally from F. Heine, Hadmersleben, Germany. (Tracy's No. 12859.)

11243. *Kleinwanzleben.*
From the American Beet Sugar Company, Grand Island, Nebr. (Tracy's No. 12860.)

11244. *Kleinwanzleben.*
From the Sanilac Sugar Refining Company, Croswell, Mich. Originally from Orro Hoerning, Eisleben, Germany. (Tracy's No. 12862.)

11245. *Kleinwanzleben.*
From the Sanilac Sugar Refining Company, Croswell, Mich. Originally from Henry Mette, Quedlinburg, Germany. (Tracy's No. 12863.)

11246. *Jaensch Victrix.*
From the Sanilac Sugar Refining Company, Croswell, Mich. Originally from Gustav Jaensch, Aschersleben, Germany. (Tracy's No. 12864.)

11247. *Knauer's Mangold.*
From the Sanilac Sugar Refining Company, Croswell, Mich. Originally from M. Knauer, Grobers, Germany. (Tracy's No. 12765.)

11248. *Aderstadt.*
From the Sanilac Sugar Refining Company, Croswell, Mich. Originally from M. Knauer, Grobers, Germany. (Tracy's No. 12866.)

11249. *Kleinwanzleben.*
From the Menominee River Sugar Refining Company, Menominee, Mich. Originally from the Klein Wanzleben Sugar Factory, Klein Wanzleben, Germany. (Tracy's No. 12867.)

11250. *Elite Kleinwanzleben.*
From the Menominee River Sugar Refining Company, Menominee, Mich. Originally from Otto Bruenstedt, Schladenam-Hartz, Germany. (Tracy's No. 12868.)

11251. *Elite Kleinwanzleben.*
From Menominee River Sugar Refining Company, Menominee, Mich. Originally from C. Braune, Biendorf, Germany. (Tracy's No. 12869.)

11252 to 11258.

Plants and seeds presented to or secured by Mr. P. H. Dorsett for planting at the Plant Introduction Garden, Chico, Cal.

11252. JUGLANS CALIFORNICA × QUERCUS (?).

Presented by Mr. S. M. Desher, Garden Grove, Cal.

"This is one of a number of trees from a planting made for grafting stock about two years ago." (*Dorsett.*)

11253. JUGLANS NIGRA. **Black walnut.**

Nuts from Mr. Ewing D. Johnson's farm, near Rockbridge, southeast of Columbia, Mo.

11254. HICORIA sp. **Hickory.**

Small hickory nuts from Mr. Ewing D. Johnson's farm, near Rockbridge, southeast of Columbia, Mo. Secured in February, 1904.

11255. AMYGDALUS hyb. **Peach almond.**

Seeds from G. W. H. fruit ranch. Received October 22, 1903.

11252 to 11258—Continued.

11256. Hicoria sp. **Hickory.**

Large hickory nuts from Wolfskill Ranch, Yolo County, Cal. Received October 10, 1903.

11257. Juglans cinerea. **Butternut.**

Nuts from Wolfskill Ranch, Yolo County, Cal. Received October 25, 1903.

11258. Cedrus libani. **Cedar of Lebanon.**

Seed from an avenue of trees near Pasadena, Cal. Presented by Mr. C. R. Lukins, Pasadena, Cal.

11259 to 11262.

From Hacienda "La Trinidad," Arcelia, Guerrero, Mexico. Presented by Mr. Federico Chisolm. Received June 24, 1904.

A collection of unidentified Mexican bulbs.

11263. Gossypium herbaceum. **Cotton.**

From Valetta, Malta. Presented by Dr. Giovanni Borg. Received June 20, 1904.

Maltese. "Seed of the old Maltese cotton, which, according to Doctor Borg, has been cultivated in Malta since the times of the Phoenicians, three thousand years ago. This is an early-ripening sort, maturing its bolls in August or September. It is a very hardy sort, of low habit, and flowers and sets with bolls when quite young. Doctor Borg says it should be sown rather thick and that it is a very productive sort. The fiber is rather short, altho very strong and elastic. Introduced as of possible use in the experiments against the boll weevil because of its early-ripening habit." (*Fairchild.*)

11264 to 11268.

From Geneva, Idaho. Received thru Mr. F. W. Boehme, June 23, 1904.

A collection of grains adapted to high altitudes, as follows:

11264. Hordeum vulgare. **Barley.**

Beardless.

11265. Hordeum vulgare. **Barley.**

Beardless and hull-less.

11266. Triticum vulgare. **Wheat.**

Spring wheat.

11267. Linum usitatissimum. **Flax.**

11268. Secale cereale. **Rye.**

Spring rye.

11269. Hyphaene crinita. **Doum palm.**

From Upper Egypt. Received thru Mr. T. H. Kearney, June 15, 1904.

"Botanically this is one of the most interesting palms in the world, as, unlike almost all others, it has a branching stem. It is suited to a frostless and exceptionally dry region and may succeed in the warmest and driest portions of this country. The fruits, which are produced in large clusters, are used for food by the poorer classes, the part eaten being the fibrous, mealy husk, which tastes something like gingerbread, and for this reason is called the "gingerbread tree" of Egypt. A drink called "coca" is also made from this fibrous husk and the large, yellowish brown, beautifully polished fruits of this palm." (*Kearney.*)

11270 to 11274.

From Jalapa, Mexico. Presented by Mr. Frank N. Meyer to Mr. G. W. Oliver. Received June 23, 1904.

Seeds of five wild Mexican plants, mostly unidentified.

11275. Medicago sativa. **Alfalfa.**

From Chicago, Ill. Received thru the Albert Dickinson Company, June 28, 1904. (Ordered by sample "Cabin.")

11276. Trifolium repens. **White clover.**

From Chicago, Ill. Received thru the Albert Dickinson Company, June 28, 1904. (Ordered by sample "Boil.")

11277 to 11341. Phoenix dactylifera. **Date.**

From Orléansville, Algeria. Received thru Yahia ben Kassem, July 5, 1904. Sixty-five date palms, all from the Mzab oasis.

11277. *Deglet Noor.*
11278. *Deglet Noor.*
11279. *Deglet Noor.*
11280. *Rhars.*
11281. *Rhars.*
11282. *Rhars.*
11283. *Hamraya.*
11284. *Hamraya.*
11285. *Hamraya.*
11286. *Tadala.*
11287. *Tadala.*
11288. *Tadala.*
11289. *Tadala.*
11290. *Tadala.*
11291. *Tadala.*
11292. *Tadala.*
11293. *Tadala* (?).
11294. *Bent Kebala.*
11295. *Bent Kebala.*
11296. *Bent Kebala.*
11297. *Bent Kebala.*
11298. *Bent Kebala.*
11299. *Bent Kebala.*
11300. *Bent Kebala.*
11301. *Bent Kebala.*
11302. *A' Ooshet.*
11303. *A' Ooshet.*
11304. *A' Ooshet.*
11305. *Kseba.*
11306. *Kseba.*
11307. *Kseba.*
11308. *Kerboosh.*
11309. *Kerboosh.*
11310. *Kerboosh.*
11311. *Kerboosh.*
11312. *Tafazween.*
11313. *Tafazween.*
11314. *Tafazween.*
11315. *Timjoohert.*
11316. *Timjoohert.*
11317. *Timjoohert.*
11318. *Timjoohert.*
11319. *Timjoohert.*
11320. *Timjoohert.*
11321. *Timjoohert.*
11322. *Timjoohert.*
11323. *Timjoohert.*
11324. *Timjoohert.*
11325. *Timjoohert.*
11326. *Tamzoohart.*
11327. *Tamzoohart.*
11328. *Taoorarhet.*
11329. *Taoorarhet.*
11330. *Taoorarhet.*
11331. *Lazerza.*
11332. *Tazeza'oot.*
11333. *Tazeza'oot.*
11334. *Tazeza'oot.*
11335. *Toojat.*
11336. *Toojat.*
11337. *Toojat.*
11338. *Sebaa Loosif.*
11339. *Sebaa Loosif.*
11340. (No label.)
11341. *Tazaga'at.*

11342. Nephelium litchi. **Litchi.**

From Trinidad, British West Indies. Received July 2, 1904.

11343. GOSSYPIUM BARBADENSE. **Cotton.**

From Valetta, Malta. Presented by Dr. Giovanni Borg. Received July 5, 1904.

"An Egyptian variety which Doctor Borg has been trying to improve on the island of Malta. Introduced for the experiments in connection with the boll weevil." (*Fairchild.*)

11344. VIGNA SINENSIS. **Cowpea.**

From West Branch, Mich. Received thru Edw. E. Evans Seed Company, July 8, 1904.

Michigan Favorite. Said by Mr. Evans to be the earliest sort known; ripens seed every year in Michigan.

11345 to 11353.

From Guerrero, Mexico. Received thru Mr. Federico Chisolm, July 9, 1904.

Native Mexican bulbs, not identified.

11354. COFFEA sp. **Coffee.**

From Abyssinia, Africa. Presented by Hon. Robert P. Skinner, American consul-general at Marseille, France. Received July 11, 1904.

Harrar. Probably a wild variety from Abyssinia.

11355 to 11368. BETA VULGARIS. **Sugar beet.**

Seed from 1903 crop remaining on hand July 1, 1904, after the distribution made by Mr. J. E. W. Tracy. Previous distribution recorded under these numbers.

11355. *Schreiber's Specialität.*

From the Menominee Sugar Refining Company, Menominee, Mich. Originally from G. Schreiber & Sons, Nordhausen, Germany. (Tracy's No. 12870.)

11356. *Kleinwanzleben.*

From H. C. & J. B. Agnew, Agnew, Cal. (Tracy's No. 12871.)

11357. *Kleinwanzleben.*

From Metz & Co., Streglitz, near Berlin, Germany.

11358. From M. Knauer, Grobers, Germany. Marked 7300.

11359. From M. Knauer, Grobers, Germany. Marked 7301.

11360. *Kleinwanzleben.*

From Carl Schobert & Co.

11361. *Elite Kleinwanzleben.*

From G. Schreiber & Sons, Nordhausen, Germany.

11362. *Kleinwanzleben.*

From E. H. Morrison, Fairfield, Wash. Purchased in 1902 for the Congressional seed distribution.

11363. *Kleinwanzleben.*

From E. H. Morrison, Fairfield, Wash. (Tracy's No. 12855.)

11364. *Kleinwanzleben.*

From C. C. Morse & Co., Santa Clara, Cal. (Tracy's No. 12861.)

11365. (Tracy's No. 12844.)

11366. (Tracy's No. 12847.)

11367. (Tracy's No. 12849.)

11368. (Tracy's No. 12850.)

11369. MANGIFERA INDICA. **Mango.**

From the Government Botanic Gardens, Seharunpur, India. Presented by Mr. Robert Anderson, Lansdowne, Pa., for propagation. Received February 25, 1904.

Buds of the *Langra* mango.

11370 and 11371.

Seed on hand July 1, 1904, numbered for convenience of recording distribution.

11370. VIGNA SINENSIS. **Cowpea.**

Iron. From Mr. T. S. Williams, Monetta, S. C.

11371. ANDROPOGON SORGHUM. **Sorghum.**

Early Amber. From Mr. Seth Kenney, Morristown, Minn.

11372 to 11477. VITIS sp. **Grape.**

From Thomery, France. Received thru E. Salomon & Sons, and shipped direct to Niles, Cal.

11372. *Rupestris Martin.*

11373. *Riparia Grand Glabre × Aramon-Rupestris 4110.*

11374. *Pinot × Rupestris 1305.*

11375. *Rupestris de Semis 81–2.*

11376. *Mourvedre × Rupestris 1202.*

11377. *Riparia France.*

11378. *Rupestris × Berlandieri 301–37–152.*

11379. *Monticola × Riparia 18804.*

11380. *Monticola × Riparia 18815.*

11381. *Chasselas × Berlandieri 41 B.*

11382. *Cabernet × Rupestris Ganzin 33 A.*

11383. *Bourisquou × Rupestris 4306.*

11384. *Monticola × Riparia 18808.*

11385. *Rupestris × Berlandieri 301 A.*

11386. *Riparia × Rupestris-Aramon-Jaeger 201.*

11387. *Riparia × Berlandieri 161–49.*

11388. *Riparia × Rupestris 3306.*

11389. *Viala.*

11390. *Bourisquou × Rupestris 3907.*

11391. *Berlandieri × Riparia 420 A.*

11392. *Rupestris × Berlandieri 219 A.*

11393. *Bourisquou × Rupestris 109–4.*

11394. *Bourisquou × Rupestris 4308.*

11395. *Viala × Riparia.*

11396. *Berlandieri × Riparia 420 B.*

11397. *Rupestris × Riparia 1615.*

11398. *Riparia du Colorado.*

11399. *Riparia × Rupestris 101–14.*

11400. *Berlandieri × Riparia 33 E. M.*

11401. *Rupestris × Riparia 108–16.*

11372 to 11477—Continued.

11402. *Berlandieri Lafont No. 9.*

11403. *Alicante Bouschet × Riparia 141 A.*

11404. *Aramon × Rupestris Ganzin 9.*

11405. *Aestivalis-Calicola × Riparia-Rupestris 554–5.*

11406. *Berlandieri No. 1.*

11407. *Berlandieri No. 2.*

11408. *Berlandieri × Riparia 157–11.*

The following vines were received at Niles, April 11, 1904:

11409. *Cordifolia × Riparia 127–1 (?).*

11410. *Rupestris × Cinerea.*

11411. *Rupestris × Cordifolia 107–11.*

11412. *Rupestris × Hybrid Azemar 215.*

11413. *York × Rupestris Ganzin 202.*

11414. *York × Rupestris Ganzin 212.*

The following cuttings were received at Niles, March 22, 1904:

11415. *Pinot × Rupestris 1305.*

11416. *Rupestris Othello.*

11417. *Riparia × Rupestris-Aramon-Jaeger 201.*

11418. *Riparia × Berlandieri 161–49.*

11419. *Monticola × Riparia 18804.*

11420. *Chasselas × Rupestris 901.*

11421. *Columbaud × Riparia 2502.*

11422. *Riparia Grand Glabre × Aramon-Rupestris 4110.*

11423. *Rupestris × Riparia 1615.*

11424. *Pinot Bouschet × Riparia 3001.*

11425. *Rupestris × Petit Bouschet-Jaeger 504.*

11426. *Berlandieri × Riparia 34 E. M.*

11427. *Mourvedre × Rupestris 1202.*

11428. *Berlandieri × Riparia 33 E. M.*

11429. *Berlandieri × Riparia 420 A.*

11430. *Bourisquou × Rupestris 603.*

11431. *Berlandieri × Riparia 420 B.*

11432. *Riparia × Cordifolia-Rupestris 106–8.*

11433. *Tisserand.*

11434. *Riparia France.*

11435. *Monticola × Riparia 18815.*

11436. *Cabernet × Rupestris Ganzin 33 A.*

11437. *Riparia × Rupestris 3306.*

11438. *Riparia Martineau.*

11439. *Riparia × Rupestris Ramon.*

11440. *Rupestris Martin.*

11441. *Aramon × Riparia 143 A.*

11442. *Riparia × Rupestris 101–14.*

11443. *Rupestris × Berlandieri 301 A.*

11372 to 11477—Continued.

11444. *Carignane* × *Rupestris 504.*
11445. *Rupestris* × *Riparia 108–16.*
11446. *Rupestris de Semis 81–2.*
11447. *Aestivalis-Calicola* × *Riparia-Rupestris 554–5.*
11448. *Monticola* × *Riparia 18808.*
11449. *Aramon* × *Rupestris Ganzin 9.*
11450. *Berlandieri No. 2.*
11451. *Berlandieri* × *Riparia 157–11.*
11452. *Berlandieri Lafont No. 9.*
11453. *Riparia* × *Rupestris 101.*
11454. *Carignane* × *Rupestris 501.*
11455. *Rupestris* × *Berlandieri 301–37–152.*
11456. *Riparia* × *Rupestris 3309.*
11457. *Riparia* × *Rupestris de Jaeger.*
11458. *Viala* × *Riparia.*
11459. *Rupestris Mission.*
11460. (Unidentified.)

The following cuttings were received at Niles, April 11, 1904:

11461. *Bourisquou* × *Rupestris 109–4.*
11462. *Bourisquou* × *Rupestris 603.*
11463. *Carignane* × *Rupestris 504.*
11464. *Rupestris* × *Cordifolia 107–11.*
11465. *Rupestris* × *Hybrid Azemar 215.*
11466. *Alicante Bouschet* × *Cordifolia 142 B.*
11467. *Aestivalis-Rupestris* × *Riparia 227.*
11468. *Cordifolia* × *Rupestris.*
11469. *Rupestris* × *Berlandieri 301 B.*
11470. *Bourisquou* × *Rupestris 4306.*
11471. *Bourisquou* × *Rupestris 4308.*
11472. *Carignane* × *Rupestris 501.*
11473. *Calicola* × *Aestivalis 13205.*
11474. *York* × *Rupestris Ganzin.*
11475. (Unidentified.)
11476. *Cinerea-Rupestris* × *Riparia 229.*
11477. (Unidentified.)

11478. GARCINIA MORELLA. **Gamboge.**

From Castleton Gardens, Jamaica. Received July 18, 1904.

11479. LESPEDEZA STRIATA. **Japan clover.**

From Augusta, Ga. Received thru the N. L. Willet Drug Company, July 19, 1904.

11480. EUCHLAENA MEXICANA. **Teosinte.**

From Richmond, Va. Received thru T. W. Wood & Sons, July 20, 1904.

11481. LOLIUM PERENNE. **English rye-grass.**

From New York, N. Y. Received thru Henry Nungesser & Co., July 20, 1904.

11482. FESTUCA PRATENSIS. **Meadow fescue.**

From New York, N. Y. Received thru Henry Nungesser & Co., July 20, 1904.

11483 and 11484.

From Ghent, Belgium. Received thru Mr. Louis Van Houtte, père, July 22, 1904.

11483. GARCINIA LIVINGSTONEI. **11484.** LANSIUM SUMATRANA.

11485 to 11489. PHOENIX DACTYLIFERA. **Date.**

From Fayum, Egypt. Received thru Mr. H. A. Rankin, July 26, 1904.

11485. *Saydy.* **11488.** *Frakhee.*

11486. *Gaggar.* **11489.** *Saydy* (male)

11487. *Sultany.*

"These date offshoots were wrapt in palm fiber (*lif*) and held in place by cords. They were rather dry, but in general in fairly good condition. Most of the offshoots were small, some not weighing over 10 pounds and only some half dozen weighing over 50 pounds. However, considering the inaccessibility of the region, we ought to be glad to get almost any kind of an offshoot that will grow. I noticed that the variety *Saydeh* has a large number of small offshoots attached to the sides of those sent, altho, as I stated above, the offshoots are only of medium size, averaging probably 30 to 40 pounds in weight. The collection of *Fraakhee* consisted of one very large offshoot and three very small ones. The very large offshoot showed a remarkable peculiarity in that the palm fiber, or '*lif*,' was still intact, forming a cardboard-like tissue, especially on the right-hand border. If this peculiarity of the interpetiolar sheets of fiber appears constant, this variety will have a very clear distinguishing mark." (*Swingle.*)

11490. VITIS RHOMBIFOLIA. **Grape.**

Received from the United States Botanical Gardens, Washington, D. C., in 1901. Plants originally came from the Botanic Garden in Glasgow.

11491. VITIS GONGYLODES. **Grape.**

From St. Louis, Mo. Presented by Dr. William Trelease, superintendent of the Missouri Botanic Garden, to Dr. B. T. Galloway, in 1902.

11492. VITIS sp. **Grape.**

From Mexico. Received thru Dr. J. N. Rose, of the United States National Museum, in 1902. (Rose No. 286.)

11493. VITIS sp. **Grape.**

From Mexico. Received thru Dr. J. N. Rose, of the United States National Museum, in 1902. (Rose No. 749.)

11494. PHLEUM PRATENSE. **Timothy.**

From Toledo, Ohio. Received thru W. D. Morehouse & Co., July 26, 1904.

11495. PANICUM MILIACEUM. **Broom-corn millet.**

From Cincinnati, Ohio. Received thru J. M. McCullough's Sons, July 27, 1904.

11496. CHAETOCHLOA ITALICA. **German millet.**

From Chicago, Ill. Received thru the Albert Dickinson Company, July 27, 1904.

"Pellet" sample.

11497. NICOTIANA TABACUM. **Tobacco.**

From Cavala, Turkey. Presented by Mr. N. J. Pantelides, of Chios Island, Turkey. Received July 5, 1904.

"Seed of the famous Cavala tobacco, which forms one of the most important elements used in the blending of the cigarette filler of the famous Egyptian cigarettes. According to Mr. Pantelides's letter of June 18, 1904, this seed was sent him by the governor of Cavala and is no doubt authentic and of first quality. Mr. Pantelides further remarks that the cultivation and harvesting of the Cavala tobacco require great experience. From the same plant one can pick leaves of a value of only 0.50 of a franc per kilogram and of a value of 15 to 20 francs a kilogram. The lance-shaped leaves found at the summit of the plant have a very fine aroma, and it is for this fine aroma that such high prices are paid. If during the process of picking the terminal bud is injured, the fine aroma of the leaves is lost and the leaves lose their value. The processes of drying and fermentation are those which give to the leaves their fine color and excellent flavor. The Ottoman Regie pays from one to two thousand francs monthly salary to good clarifiers (clarificateurs) and 250 to 300 francs a month to good cultivators. In his country Mr. Pantelides says the seed is sown in January, transplanted during February to a place protected from the cold, and in March transplanted again to permanent locations. Each plant is set out a meter each way from its neighbors. The best soil for the culture of this tobacco is said to be a red one mixt with stones of iron pyrites, and the best locations are those on the eastern slopes of hills." (*Fairchild.*)

11498. NICOTIANA TABACUM. **Tobacco.**

From Sao Paulo, Brazil. Received thru Dr. Horace M. Lane, president of the Mackenzie College, July 25, 1904.

Bahiano tobacco seed, the variety from which the celebrated *Bahia* leaf is made.

11499. PRUNUS VIRGINIANA. **Chokecherry.**

"From Arden, near Dakota-Montana line. Presented by Prof. J. W. Blankinship, of the Montana Agricultural Experiment Station, Bozeman, Mont. Received August 1, 1904.

"Seeds of a free-flowering shrubby species of chokecherry which is perfectly hardy when the thermometer drops to —30° F. in winter. From the description given by Professor Blankinship this must be a very showy plant in spring. The black fruits are used for jam or 'cherry butter' making." (*Fairchild.*)

"A beautiful flowering tree, about 25 feet high." (*Blankinship.*)

11500. PRUNUS VIRGINIANA. **Chokecherry.**

From Bozeman, Mont. Presented by Prof. J. W. Blankinship. Received August 1, 1904.

"Seeds of a large, red-fruited variety, whose fruits are considered better than the black. Large quantities of cherry butter are made in Montana, and this variety has possibilities for the breeder." (*Fairchild.*)

11501. GARCINIA INDICA.

From Trinidad, West Indies. Received thru Mr. J. H. Hart, superintendent of the Botanic Gardens, July 29, 1904.

11502. GOSSYPIUM sp. **Cotton.**

From San Luis Soyatlan, Jalisco, Mexico. Received thru Señor Hilario Cuevas, July 21, 1904.

Cotton harvested in June from trees planted in September preceding at an altitude of 1,630 meters above the level of the sea. Sent at the request of Mr. L. H. Dewey.

11503. Mucuna utilis. **Velvet bean.**

From Clarcona, Fla. Received thru Mr. H. Meislahn, August 3, 1904.

11504. Coffea sp. **Coffee.**

From Abyssinia. Received thru Hon. Robert P. Skinner, United States consul-general at Marseille, France, July 22, 1904.

Wild *Harrar* coffee.

11505 to 11531.

From London, England. Received thru James Veitch & Sons (Limited), April, 1904.

A collection of plants, as follows:

11505. Rubus australis.

11506. Rubus biflorus.

11507. Rubus odoratus. **Purple flowering raspberry.**

11508. Rubus rosaefolius. **Strawberry raspberry.**

11509. Rubus phoenicolasius. **Wineberry.**

11510. Rubus nigrobaccus. **Blackberry.**
Snyder.

11511. Rubus spectabilis. **Salmon berry.**

11512. Rubus deliciosus. **Rocky Mountain flowering raspberry.**

11513. Rubus leucodermis. **Western black raspberry.**

11514. Rubus occidentalis. **Black raspberry.**
Newman's Thornless.

11515. Rubus nigrobaccus. **Blackberry.**

11516. Rubus hyb. **Raspberry-blackberry hyb.**
The Mahdi.

11517 and 11518. Rosa spp. **Rose.**

11517. *Alice Grahame.*
11518. *Bessie Brown.*

11519. Rosa humilis. **Pasture rose.**

11520 to 11531. Rosa spp. **Rose.**

11520. *Edith D' Ombrain.*
11521. *Florence Pemberton.*
11522. *Lady Moyra Beauclerc.*
11523. *Madame Antoine Mari.*
11524. *Marianne Pfitzer.*
11525. *Marie Lavälley.*
11526. *Mildred Grant.*
11527. *Morning Glow.*
11528. *Mrs. Allen Chandler.*
11529. *Mrs. Benjamin R. Cant.*
11530. *Queen of Sweden and Norway.*
11531. *Salmonea.*

11532. Arachis hypogaea. **Peanut.**

From Sao Paulo, Brazil. Received thru Dr. Horace M. Lane, president of the Mackenzie College, July 16, 1904.

Pods of a peanut, said to be native, but which Doctor Lane thinks may be of African origin. The pods are of fair size and nearly all contain two seeds.

11533. Polianthes longiflora. **Tuberose.**

From Mexico. Received thru Dr. J. N. Rose, of the United States National Museum, August 5, 1904.

11534. ACHRAS SAPOTA. **Sapodilla.**

Plants propagated from large tree in Department conservatory; numbered for convenience in recording future distribution, August 1, 1904.

11535. RICHARDIA AFRICANA. **Calla.**

From Chicago, Ill. Received thru Vaughan's seed store, August 10, 1904.

Trade name, *Calla Aethiopica devoniensis.*

11536 to 11538. ROSA sp. **Rose.**

From London, England. Received thru Barr & Sons, June, 1903.

11536. *Austrian Copper Brier.*
11537. *Harisoni Brier.*
11538. *Persian Yellow Brier.*

11539 to 11564.

From Feltham, Middlesex, England. Received thru Mr. Thomas S. Ware, Hale Farm Nurseries, August, 1903.

Plants, as follows:

11539 to 11563. CLEMATIS spp. **Clematis.**

11539. *Madame Édouard André.*
11540. *Grace Darling.*
11541. *Alexandra.*
11542. *Anderson Henryi.*
11543. *Ascontiensis.*
11544. *Beauty of Worcester.*
11545. *Duchess of Edinburgh.*
11546. *Duke of Edinburgh.*
11547. *Earl of Beaconsfield.*
11548. *Enchantress.*
11549. *Nellie Moser.*
11550. *Fairy Queen.*
11551. *Fair Rosamond.*
11552. CLEMATIS FORTUNEI.
11553. *Gem.*
11554. *Gipsey Queen.*
11555. *Gloire de St. Julien.*
11556. *Grand Duchess.*
11557. CLEMATIS RETICULATA.
11558. CLEMATIS JACKMANNI ALBA.
11559. CLEMATIS JACKMANNI.

Snow White.

11560. CLEMATIS JACKMANNI.

Superba.

11561. *John Gould.*
11562. *Lawsoniana.*
11563. *Marcel Moser.*

11564. AMPELOPSIS VEITCHII PURPUREA.

11565 to 11589. LILIUM spp. **Lily.**

From Yokohama, Japan. Received thru Suzuki & Iida, New York agents for the Yokohama Nursery Company, December, 1903.

Bulbs as follows:

11565. LILIUM BATMANNIAE.
11566. LILIUM CONCOLOR.
11567. LILIUM CONCOLOR OHIME.
11568. LILIUM CONCOLOR.
11569. LILIUM CONCOLOR OKIHIME.
11570. LILIUM CORDIFOLIUM.
11571. LILIUM ELEGANS.
11572. LILIUM ELEGANS.
11573. LILIUM ELEGANS ATROSANGUINEUM.
11574. LILIUM ELEGANS SEMIPLENO.

11565 to 11589—Continued.

11575. LILIUM ELEGANS INCOMPARABLE.

11576. LILIUM DAHURICUM.

11577. LILIUM HANSONI.

11578. LILIUM JAPONICUM.

11579. LILIUM RUBELLUM.

11580. LILIUM BROWNII.

11581. LILIUM LEICHTLINII.

11582. LILIUM LONGIFLORUM.

11583. LILIUM LONGIFLORUM EXIMIUM GIGANTEUM.

11584. LILIUM MEDEOLOIDES.

11585. LILIUM SPECIOSUM RUBRUM.

11586. LILIUM SPECIOSUM ALBUM.

11587. LILIUM SPECIOSUM KRETZERI.

11588. LILIUM SPECIOSUM MELPOMENE.

11589. LILIUM UKEYURI.

11590 and 11591. LILIUM LONGIFLORUM EXIMIUM GIGANTEUM. **Lily.**

Grown from S. P. I. No. 11583 in the Department greenhouse.

11590. Bulbs.

11591. Seeds.

11592 to 11602.

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, July 11, 1904.

Small lots of seeds of Guerrero plants, as follows:

11592. ENTEROLOBIUM CYCLOCARPUM. "**Parota.**"

"One of the most admirable shade trees I have ever seen, a rapid grower, and valuable for the easily worked but durable lumber it yields, as well as for the seeds, which are largely eaten by the natives at this season and are greedily eaten by hogs. The measurements of a specimen shading the assay office at 'La Trinidad' were about as follows: Trunk, from ground to branches, 12 feet; diameter, 4 feet; from ground to top of tree, 59 feet; extreme spread of branches from tip to tip, measured thru trunk, 122 feet; the general outline similar to that of an umbrella. To me it seems a tree well worth introducing." (*Chisolm.*)

11593 to 11602.

A collection of unidentified plants, mostly bulbs.

11603 to 11623.

From Fort Hays, Kans. Received thru Mr. J. G. Haney, superintendent of the Branch Agricultural Experiment Station, August 1, 1904.

11603 to 11617. TRITICUM VULGARE. **Wheat.**

11603. *Kharkof.* Grown from S. P. I. No. 7786.

11604. *Beloglina.* Grown from S. P. I. No. 7787.

11605. *Ulta.* Grown from S. P. I. No. 5638.

11606. *Crimean.* Grown from S. P. I. No. 5636.

11607. *Ghirka Winter.* Grown from S. P. I. No. 5637.

11608. *Padui.* Grown from S. P. I. No. 7466.

11609. *Kharkof.* Grown from S. P. I. No. 5641.

11610. *Turkey.* Grown from C. I. No. 1558.

11611. *Crimean.* Grown from S. P. I. No. 5635.

11612. *Crimean.* Grown from C. I. No. 1559.

11613. *Banat.* Grown from S. P. I. No. 5496.

11614. *Bacska.* Grown from S. P. I. No. 5498.

11615. *Weissenburg.* Grown from S. P. I. No. 5499.

11616. *Pesterboden.* Grown from S. P. I. No. 5500.

11617. *Kharkof.* Grown from S. P. I. No. 7467.

11603 to 11623—Continued.

11618 and 11619. TRITICUM DURUM. **Macaroni wheat.**

11618. *Kubanka.* Grown from S. P. I. No. 9478.

11619. *Velvet Don.* Grown from S. P. I. No. 9479.

11620 to 11623. HORDEUM spp. **Barley.**

11620. HORDEUM VULGARE. **Barley.**
Black. Grown from S. P. I. No. 7970.

11621. HORDEUM VULGARE. **Barley.**
White. Grown from S. P. I. No. 7969.

11622. HORDEUM DISTICHUM NUTANS. **Two-row barley.**
Hanna. Grown from S. P. I. No. 9133.

11623. HORDEUM TETRASTICHUM. **Four-row barley.**
Tetcherit. Grown from S. P. I. No. 7796.

11624. CERCIDIPHYLLUM JAPONICUM.

From Philadelphia, Pa. Received thru Thomas Meehan & Sons, 1903.

Plants purchased to test as stocks for the mango. The scions failed to unite.

11625. MANGIFERA INDICA. **Mango.**

From Tahiti. Received thru Captain Rennie, of the steamship *Mariposa*, August 11, 1904.

11626 and 11627. (Undetermined.)

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, August 13, 1904.

11628. HICORIA hyb. **Pecan.**

From Washington, D. C. Received thru Mr. P. H. Dorsett, February, 1904.

From pecans purchased in the open market. Has the appearance of a hybrid between *Hicoria pecan* and *Hicoria aquatica.* Planted in the Plant Introduction Garden at Chico, Cal., May 31, 1904.

11629. ACTINIDIA sp. **"Yang-taw."**

From the borders of Yunnan. Received thru Consul-General Wilcox, of Hankow, China, and Mr. Wilson, at the Plant Introduction Garden, Chico, Cal., July 8, 1904.

Fruit said to be very fine, has flavor of gooseberry, fig, and citron. Sometimes called "Yang-tao."

11630. ACTINIDIA sp. **"Yang-taw."**

From the borders of Yunnan. Received thru Consul-General Wilcox, of Hankow, China, and Mr. Wilson, at the Plant Introduction Garden, Chico, Cal., July 8, 1904.

Possibly distinct from No. 11629, tho as yet undetermined.

11631. ERIOBOTRYA JAPONICA. **Loquat.**

From Orange, Cal. Collected by Mr. M. Payan, of Olive, Cal., from the orchard of Mr. C. P. Taft, Orange, Cal. Received at the Plant Introduction Garden, Chico, Cal., July 18, 1904.

11632. ACHRAS SAPOTA (?). **Sapodilla.**

From Jalapa, Vera Cruz, Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

"A nice tasting fruit, in size and shape not unlike the eastern persimmon. The pulp is brownish and of a sweet, pleasant taste." (*Meyer.*)

11633. PRUNUS ARMENIACA. **Apricot.**

From Jalapa, Vera Cruz, Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

"These apricots are small in size but have sometimes a nice flavor. They seem to be all seedlings and vary, it is said, a great deal." (*Meyer.*)

11634. CICER ARIETINUM. **Chick-pea.**

From Jalapa, Vera Cruz, Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

"A vegetable which is eaten like green peas. On some markets they are sold roasted in the shell, and they taste well. Grown on dry but rich lands." (*Meyer.*)

11635. FRAXINUS sp. **Ash.**

From Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

"A very handsome shade tree, which grows to quite a size. These seeds are from a very spreading variety which grew on dry, rocky places near Guadalajara." (*Meyer.*)

11636. PRUNUS sp. **Cherry.**

From Jalapa, Vera Cruz, Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

"This is a cherry inferior in size and flavor to the ordinary cherry. The tree is evergreen and can be used as an ornamental shade tree." (*Meyer.*)

11637. LUPINUS sp. **Lupine.**

From Jalapa, Vera Cruz, Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

"A rather ornamental small lupine, with blue spikes, which vary in color from whitish to indigo blue." (*Meyer.*)

11638. RICINUS sp. **Castor-oil plant.**

From Jalapa, Vera Cruz, Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

"A castor-oil bean with very showy red spikes. May prove to be an ornamental plant." (*Meyer.*)

11639. CAPSICUM ANNUUM. **Pepper.**

From Jalapa, Vera Cruz, Mexico. Received thru Mr. Frank N. Meyer at the Plant Introduction Garden at Chico, Cal., June, 1904.

Yellow Chili. "A handsome pepper, much sold in the market at Jalapa, a bright showy yellow, quite pungent in taste." (*Meyer.*)

11640. AGROSTIS ALBA. **Redtop.**

From New York, N. Y. Received thru Henry Nungesser & Co., August 16, 1904.

11641 to 11644.

From Nice, Alpes-Maritimes, France. Received thru Dr. A. Robertson-Proschowsky, August 1, 1904.

11641. ARUNDINARIA SIMONI. **Bamboo.**

"A small bamboo, producing good, edible seeds. This small bamboo does not, as some others, die altogether after producing its seeds, but some rhizomes survive. Still perhaps it is too early to judge of the survival of such. As you will find, the large seeds are of very good taste, and evidently could be used

11641 to 11644—Continued.

as well as wheat, barley, and other grains. This bamboo is very resistant to drought. Would it eventually be a plant of any other than ornamental use? Perhaps some of your active and enterprising correspondents in the United States would care to try this plant." (*Proschowsky.*)

11642. JACARANDA OVALIFOLIA.

"The well-known tree of most striking beauty of foliage and flower. The timber is very strong. Resists well in dry places." (*Proschowsky.*)

11643. ALOË DICHOTOMA.

"Forms a picturesque tree of medicinal value." (*Proschowsky.*)

11644. PITTOSPORUM MACROPHYLLUM.

"This is a tree of very regular growth and striking beauty. Its leaves are nearly as large as those of *Magnolia grandiflora* L. But its chief merit consists in its beautiful creamy-white flowers, which exhale a perfume surpassing that of any other plant I know, even the orange and lemon. I should think that the extraction of this perfume would prove a paying undertaking." (*Proschowsky.*)

11645 and 11646. MANGIFERA spp.

From Saigon, Cochin China. Received thru Mr. M. E. Haffner, director of agriculture, August 20, 1904.

Seeds as follows:

11645. MANGIFERA CAMBODIANA. **11646.** MANGIFERA MEKONGENSIS.

11647. MUSA sp. **Banana.**

From Monte, Grand Canary. Received thru Mr. Alaricus Delmard, August 22, 1904.

11648. MAMMEA AMERICANA. **Mammee apple.**

From Mayaguez, P. R. Received thru Mr. O. W. Barrett, Agricultural Experiment Station, August 22, 1904.

For use in mangosteen experiments.

11649. LILIUM NEILGHERRENSE. **Neilgherry lily.**

From Utakamand, India. Received thru Mr. G. H. Cave, superintendent of the Government Botanic Gardens, August 19, 1904.

11650. TRITICUM DICOCCUM. **Emmer.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., August 27, 1904.

Amidonnier noir.

11651 and 11652. MEDICAGO SATIVA. **Alfalfa.**

From City of Mexico, Mexico. Received thru Mr. Felix Foëx, National School of Agriculture, August 24, 1904.

11651. *Atlixco*, from State of Pueblo. **11652.** *Apater*, from State of Guanajuato.

11653. CALOPHYLLUM CALABA.

From Honolulu, Hawaii. Received thru Mr. Gerrit P. Wilder, August 29, 1904.

For experiments in propagating the mangosteen.

11654. LANDOLPHIA sp. (?).

From Africa. Presented thru Mr. G. N. Collins by Mr. Gilbert Christy. Received August 31, 1904.

11655. AVENA SATIVA. **Oat.**

From Statesville, N. C. Received thru Dr. B. W. Kilgore, of the North Carolina Agricultural Experiment Station, September 2, 1904.

11656. THEOBROMA CACAO. **Cacao.**

From Nicoya, Costa Rica. Received thru Mr. G. N. Collins, June, 1903. (G. & G. No. 3979.)

11657. CASTILLOA NICOYENSIS. **Central American rubber.**

From Nicoya, Costa Rica. Received thru Mr. G. N. Collins, June, 1903. (G. & G. No. 3980.)

11658. HORDEUM VULGARE. **Barley.**

From Blacksburg, Va. Received thru Mr. John R. Fain, September 7, 1904.

Tennessee Winter barley, shipped from Jefferson City, Tenn.

11659. THEVETIA OVATA (?).

From Guadalajara, Mexico. Received from Mr. Federico Chisolm, September 3, 1904.

11660. HELIANTHUS sp. **Sunflower.**

From Bozeman, Mont. Received from the Montana Agricultural Experiment Station, August 29, 1904.

11661 to 11673. CITRUS DECUMANA. **Pomelo.**

From Calcutta, India. Originally from Mr. David Prain, of the Royal Botanic Garden. Presented to the Department by Mr. Henry Phipps, 6 East Eighty-seventh street, New York, N. Y. Received September 8, 1904.

Plants as follows:

11661. "Large White-Fleshed," from Seharunpur.

11662. "Large Red-Fleshed," from Seharunpur.

11663. "China," from Seharunpur.

11664. "Pure White Sweet," from Bangalore.

11665. "White Sweet," from Bangalore.

11666. "Red Sweet Variety," from Bangalore.

11667. "White Sour," from Bangalore.

11668. "Large," from Lucknow.

11669. "Small," from Lucknow.

11670. "White," from the Agricultural-Horticultural Society, Alipore, Calcutta, India.

11671. "A. H. Society's," from the Agricultural-Horticultural Society, Alipore, Calcutta, India.

11672. "Pink," from the Agricultural-Horticultural Society, Alipore, Calcutta, India.

11673. "Royal Botanic Garden" variety, from Calcutta.

11674. VITIS COIGNETIAE. **Crimson glory vine.**

From New York, N. Y. Received thru Messrs. Henry & Lee, 97 Water street, September 9, 1904.

11675. ANANAS SATIVUS. **Pineapple.**

Received September 9, 1904. (Mailed from some point in Liberia, but origin unknown.)

11676. BALSAMORRHIZA sp. **Balsam root.**

From Bozeman, Mont. Received thru Mr. A. J. Pieters, August, 1904.

11677. VICIA SATIVA. **Common vetch.**

From New York, N. Y. Received thru J. M. Thorburn & Co., 36 Cortlandt street, September, 1904.

11678. HORDEUM VULGARE. **Barley.**

From St. Anthony Park, Minn. Received thru Prof. W. M. Hays, of the Agricultural Experiment Station, September, 1904.

11679. VICIA SATIVA. **Common vetch.**

From Richmond, Va. Received thru T. W. Wood & Sons, September, 1904.

11680. VICIA VILLOSA. **Hairy vetch.**

From Richmond, Va. Received thru T. W. Wood & Sons, September, 1904.

11681. BRUCEA SUMATRANA. **"Kosam."**

From Singapore, Straits Settlements. Received from the Botanic Gardens, thru the German consulate, September 12, 1904.

The fruit of this plant is said to be an infallible remedy for dysentery.

11682. LIPPIA REPENS.

From Santa Barbara, Cal. Received thru Dr. F. Franceschi at the Plant Introduction Garden, Chico, Cal., August 26, 1904.

"Thrives in any soil, no matter how poor. Rapidly covers the ground with a very dense matting. Takes one-tenth as much water as any lawn; needs no mowing; will stand intense heat and several degrees of cold. Can be established in sloping ground." (*Franceschi.*) (See S. P. I. No. 4263.)

11683. HUMULUS LUPULUS. **Hop.**

From Wheatland, Cal. Received at the Plant Introduction Garden, Chico, Cal., August 15, 1904.

11684. BRASSICA NAPUS. **Rape.**

From New York, N. Y. Received thru Henry Nungesser & Co., September 15, 1904.

Dwarf Essex.

11685 to 11696.

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, September 19, 1904.

Miscellaneous seeds and bulbs, mostly unidentified.

11697. VICIA FABA. **Horse bean.**

From Ottawa, Canada. Received thru Graham Brothers, September 21, 1904.

Tick.

11698 to 11713. MANIHOT spp. **Cassava.**

From Sao Paulo, Brazil. Received thru Prof. Alberto Löfgren, director of the Botanic Gardens, September 24, 1904.

11698 to 11713—Continued.

Cuttings, as follows:

11698. *Globo.*

11699. *Vermelha do Pinhal.*

11700. *Boacava Brava.* (Poisonous.)

11701. *Tatu.*

11702. *Aipim Amarello.*

11703. *Vermelha.*

11704. *Branca.*

11705. *Mata Fome.*

11706. *Barra Bonita.*

11707. *Aipim Doce.*

11708. *Amarella.*

11709. *Cambalho Brava.*

11710. *Mata Fome II.*

11711. *Rosa.*

11712. *Sao Tedrinho.* (Very poisonous.)

11713. *Itapira Brava.* (Poisonous.)

11714. TRITICUM VULGARE. **Wheat.**

From Tempe, Ariz. Received thru Mr. John Jungerman, September 26, 1904.

Fretes. Grown from S. P. I. No. 7582.

11715. TRITICUM DURUM. **Macaroni wheat.**

From Tempe, Ariz. Received thru Mr. John Jungerman, September 26, 1904.

Marouani. Grown from S. P. I. No. 9324.

11716 and 11717. HORDEUM TETRASTICHUM. **Four-row barley.**

From Tempe, Ariz. Received thru Mr. John Jungerman, September 26, 1904.

11716. *Beldi.* Grown from S. P. I. No. 7583.

11717. *Telli.* Grown from S. P. I. No. 7584.

11718 and 11719. LIATRIS SCARIOSA. **Button snakeroot.**

From Minneapolis, Minn. Presented by Prof. E. M. Freeman. Received September 22, 1904.

11718. Roots or corms.

11719. Seed.

11720. SICANA ODORIFERA.

From Trinidad, British West Indies. Presented by Mr. J. H. Hart, superintendent of the Royal Botanic Gardens. Received September 20, 1904.

11721. GARCINIA CELEBICA.

From Buitenzorg, Java, Dutch East Indies. Presented by Doctor Treub, September 28, 1904.

11722. AVENA SATIVA. **Oat.**

From Yancey, Ga. Purchased from Mr. H. Yancey, jr. Received September 28, 1904.

Appler Rustproof.

11723. IPOMOEA PES-CAPRAE.

From Durban, Natal. Presented by Mr. J. L. Elmore, agent and importer of American goods, Third avenue. Received September 30, 1904.

"These small seeds and pods grow here on the sand next to the seashore, and greatly retard the sand from blowing inland. They grow on runners as much as 30 feet in length, every few feet throwing up stems with large green leaves a foot above the sand, thus preventing the sand from shifting." (*Elmore.*)

11724. PERSEA GRATISSIMA. **Avocado.**

From Durban, Natal. Presented by Mr. J. L. Elmore. Received September 30, 1904, in same package with No. 11723.

"These pears have only been introduced into this country for a few years, and are proving a source of great revenue. The trees are strong and healthy, and bear after about five years' growth—grow as well from seeds as grafted ones. When in season prices range here for the fruit from 50 cents to $2 per dozen. The fruit never ripens on the tree, but soon ripens after it is full grown and picked and laid aside for a few days. This fruit can be transported any distance, as it is perfectly hard when pulled and does not soften for some days. After being laid aside for a few days they become soft and then are edible. The flesh is about one-half inch in thickness, and when ripe of a light yellow shading to a pea green next to the skin, and if eaten with a little sugar and milk is like rich cream. Some prefer salt and pepper and a little vinegar; others nothing at all. I know of people here who eat no meat when these pears are in season. The trees grow in a sandy soil to a good size, and I think they would grow in the Southern States and California." (*Elmore.*)

11725. GARCINIA MANGOSTANA. **Mangosteen.**

From Saigon, Cochin China. Presented by Dr. M. E. Haffner, director of the Botanic Gardens. Received October 3, 1904.

11726. PSIDIUM GUAJAVA. **Guava.**

From Trinidad, British West Indies. Presented by Mr. J. H. Hart, superintendent of the Royal Botanic Gardens. Received October 3, 1904.

A large red guava. Fruit of this variety is reputed to weigh at the rate of three to a pound. (*Hart.*)

11727. PANICUM DECOMPOSITUM. **Australian millet.**

From Sydney, New South Wales. Presented by Mr. J. H. Maiden, director of the Botanic Gardens. Received October 4, 1904.

"From the dry interior of southwestern Queensland. The seed was collected by the blacks, who use it largely for food, while the grass itself is one of the best fodder grasses of Australia." (*Maiden.*) (See Maiden's *Useful Native Plants of Australia*, p. 97.)

11728 to 11730. LILIUM LONGIFLORUM EXIMEUM. **Easter lily.**

From New York, N. Y. Received thru Henry & Lee, August 3, 1904.

11728. Bermuda-grown bulbs.

11729. Azores-grown bulbs.

11730. Japan-grown bulbs.

11731. TRITICUM sp. **Wheat.**

From Germany. Presented by Mr. A. Kirsche, Pfiffelbach, near Apolda, thru Mr. J. E. W. Tracy. Received September 30, 1904.

Original *Winter Square Head.*

11732. GARCINIA MANGOSTANA. **Mangosteen.**

From Singapore, Straits Settlements. Presented by Mr. R. Derry, assistant superintendent of the Botanic Gardens. Received November 18, 1904.

11733. ASPARAGUS VIRGATUS. **Asparagus.**

From Durban, Natal, South Africa. Presented by Mr. J. Medley Wood, curator of the Botanic Gardens. Received November 18, 1904.

"A native Natal asparagus, which is said to produce edible shoots of good quality. The plant does not require so much care as the cultivated asparagus, and may therefore prove of value for breeding purposes." (*Wood.*)

11734. CARISSA ARDUINA. **Amatungulu.**

From Natal, South Africa. Presented by Mr. J. Medley Wood, curator of the Botanic Gardens, Durban. Received August 8, 1904.

"A food plant of considerable importance in Natal, where it is found in large quantities on the market, and from which is made a very valuable jelly. The plant, grown in hedge form in and about the city of Durban, is a handsome thing; its large white flowers and crimson fruits stand out in beautiful contrast with the background of dark-green foliage." (*Fairchild.*)

11735. SECALE CEREALE. **Rye.**

From Steglitz, near Berlin, Germany. Received thru Metz & Co., October 6, 1904.

Original *Professor Heinrich.*

11736. EUCALYPTUS CORYNOCALYX. **Sugar gum tree.**

From Pomona, Cal. Received thru Mr. G. W. Kuesthardt, November 11, 1904.

11737. POA PRATENSIS. **Kentucky bluegrass.**

From New York, N. Y. Received thru J. M. Thorburn & Co., October 10, 1904.

11738. VICIA SATIVA. **Common vetch.**

From New York, N. Y. Received thru J. M. Thorburn & Co., October 10, 1904.

11739. THYSANOLAENA AGROSTIS.

From Sibpur, near Calcutta, India. Presented by the Royal Botanic Garden. Received August 3, 1904.

See S. P. I. No. 8445 for a description of this extremely ornamental flowering cane.

11740. PENTZIA VIRGATA.

From Oatlands, South Africa. Received thru Messrs. Lathrop and Fairchild (No. 1138, March, 1903), August 1, 1904. (See No. 10635.)

11741 and 11742. CAPSICUM ANNUUM. **Paprika pepper.**

From Bridgeport, Ala. Grown by the Botanic Drug Company. Received August 29, 1904.

11741. *Szeged Rose*, grown from S. P. I. No. 10755.

11742. Large, red, long *Hungarian*, grown from S. P. I. No. 10756.

11743 to 11757.

From Melbourne, Australia. Presented by Mr. William Robert Guilfoyle, director of the Botanic Gardens. Received July, 1904.

Sample packets of seed as follows:

11743. ACACIA LONGIFOLIA.
11744. ACACIA PROMINENS.
11745. CARPODETUS SERRATUS.
11746. EUTELEA ARBORESCENS.
11747. EUCALYPTUS BOTRYOIDES.
11748. EUCALYPTUS LONGIFOLIA.
11749. GREVILLEA ROBUSTA.
11750. HYMENOSPORUM FLAVUM.
11751. PANAX ELEGANS.
11752. PITTOSPORUM BUCHANANI.
11753. PITTOSPORUM UNDULATUM.
11754. STERCULIA ACERIFOLIA.
11755. STERCULIA DIVERSIFOLIA.
11756. SYNCARPIA LAURIFOLIA.
11757. TRISTANIA LAURINA.

11758. Ulex europaeus. **Gorse, whin, or furze.**

From Dublin, Ireland. Presented by Hogg & Robertson, seedsmen. Received in June, 1904.

"This plant is used extensively in northern France, England, and Ireland as a fodder plant. It is not cultivated there, however. Shredders are used for preparing it for stock, and, according to Mr. J. B. Blandy, of Funchal, Madeira, who uses it extensively, it is a most valuable plant for barren soils where other things will not grow." (*Fairchild.*)

11759. Vicia faba. **Horse bean.**

From Montreal, Canada. Received thru Prof. W. T. Macoum, horticulturist, Central Experiment Farm, Ottawa, Canada, from William Ewing & Co., October 12, 1904.

11760. Secale cereale. **Rye.**

From Waterloo, Kans. Received thru Mr. J. Elza Dodge, October 14, 1904.

Grown from S. P. I. No. 1342.

11761 and 11762. Allium cepa. **Onion.**

From Teneriffe, Canary Islands. Presented by United States Consul Solomon Berliner. Received October 6, 1904.

11761. *White.* **11762.** *Red.*

11763. Vicia villosa. **Hairy vetch.**

From Augusta, Ga. Received thru the N. L. Willet Drug Company, October 15, 1904.

11764. Vicia sativa. **Common vetch.**

From New York, N. Y. Received thru J. M. Thorburn & Co., October 19, 1904.

11765. Persea carolinensis. **Red bay, or swamp bay.**

From New Orleans, La. Presented by Mr. Edward Baker, superintendent of Audubon Park. Received October 17, 1904.

"In regions where the avocado (*Persea gratissima*) can be grown, but which are subject at long intervals to heavy, killing frosts, this relative of the latter may prove valuable as a stock on which to graft it. It may also be of use for breeding purposes." (*Fairchild.*)

11766 to 11768.

From Honolulu, Hawaii. Presented by Mr. Gerrit P. Wilder. Received October 14, 1904.

Specimen fruits as follows:

11766. Mangifera indica. **Mango.**

"Very fine specimen, grown on the premises of Mr. W. C. Parke, of Honolulu. Considered one of our best mangos here." (*Wilder.*)

11767. (Unidentified.) **11768.** (Unidentified.)

11769. Cedrela odorata.

From Buenos Aires, Argentine Republic. Presented by Mr. Carlos Thays, director of the Jardin Botanico. Received October 22, 1904.

"This plant belongs to a group of trees which Dr. F. Franceschi, of Santa Barbara, Cal., has been studying for some time. He remarks in a letter of September 20, 1903, as follows: 'The Cedrela I consider among the most interesting of the trees which I have tried here, and remarkably so *C. fissilis*, which makes a wonderful growth and appears to be much hardier than its native habitat would warrant.' The use of the timber of this species of Cedrela for cigar boxes makes the plants of unusual interest to southern California, where they will grow unusually well." (*Fairchild.*)

11770. GAILLARDIA sp. **Gaillardia.**

From Big Stone City, S. Dak. Collected by Mr. A. J. Pieters, August, 1904.

"Sample of seed of a Gaillardia with rose-purple rays. Low-growing perennial (?). Flowers borne on peduncle arising from the base of the plant, and usually from a foot to 18 inches high. May be a good thing for crossing with other Gaillardias, but not a sufficiently profuse bloomer by itself." (*Pieters.*)

11771. CHRYSOPSIS HISPIDA. **Golden aster.**

From Dawson, N. Dak. Collected by Mr. A. J. Pieters, August, 1904.

"Found blooming at Dawson, N. Dak., and thruout that country during late August, 1904. Calyx scales glutinous, flowers yellow." (*Pieters.*)

11772. LIATRIS sp. **Button snakeroot.**

From near Fargo, N. Dak. Collected by Mr. A. J. Pieters, August, 1904.

"Seed of a fine perennial for the herbaceous border. Grows 2 to 3 feet high and bears a fine spike with purple flowers." (*Pieters.*)

11773. HELIANTHUS sp. **Sunflower.**

From Dawson, N. Dak. Collected by Mr. A. J. Pieters, August, 1904.

"Practically the same type as that known in the trade as *Stella.* Varies in size from 12 inches to 4 feet or more, depending on soil and moisture." (*Pieters.*)

11774. CUCUMIS sp. **Melon.**

From province of Esmeraldas, Ecuador. Presented by Mr. George D. Hedian. Received September 20, 1904.

"Fruit grows to a size of 48 to 50 cm. in length; yellow when ripe, and pulp resembles that of muskmelon. Has fragrant odor when ripening." (*Hedian.*)

11775. GOSSYPIUM sp. **Cotton.**

From province of Esmeraldas, Ecuador. Presented by Mr. George D. Hedian. Received September 20, 1904.

11776. GOSSYPIUM sp. **Cotton.**

From province of Esmeraldas, Ecuador. Presented by Mr. George D. Hedian. Received September 20, 1904.

This cotton seed in bolls grows 8 feet high and buds in six months.

11777. AMYGDALUS PERSICA. **Nectarine.**

From Kashgar, Kashmir, British India. Presented by Rev. P. J. P. Hendriks. Received October 24, 1904.

"Collected in the latter part of July by Mr. Hendriks at Kashgar and forwarded by parcel post. Mr. Hendriks remarks in his letter of July 23 that 'they want a hot but only a short summer, and as walnuts are ripening in Washington I am confident that they will come all right. You may call them *Crosby* nectarines. I am quite sure they will make a fine acquisition to any orchard.'

"In compliance with the wish of the donor, if these nectarines prove in any way remarkable they should be named in honor of Mr. O. T. Crosby, to whom we are indebted for putting us in communication with Mr. Hendriks." (*Fairchild.*)

11778. PISTACIA VERA. **Pistache.**

From Kashgar, Kashmir, British India. Presented by Rev. P. J. P. Hendriks. Received October 24, 1904.

"These seeds were collected by Mr. Hendriks from the bazaar in Kashgar. He is afraid they will have lost their germinative power, but as they come from the hot valleys of Badakhshan, west of the Pamirs, they may prove a different strain from those introduced from the Levant and to be of unusual value. These were received by parcels post thru Latham & Co., of Bombay, India. Larger shipments must be sent by caravan from Kashgar to Ladak, thence by caravan to Kashmir, thence to Rawlpindi and by rail to Bombay. The costs of transit would be about 2 rupees per kilogram and the time required about two months." (*Fairchild.*)

11779. MANGIFERA INDICA. **Mango.**

From Beira, East Africa. Presented by Hon. Arthur W. H. Glenny, United States consular agent, Beira, East Africa.

Lathrop. See description of No. 9669.

11780. HORDEUM VULGARE. **Barley.**

From McPherson, Kans. Received thru Mr. L. A. Fitz, October 25, 1904.

Tennessee Winter.

11781. SESBANIA MACROCARPA.

From Tucson, Ariz. Received thru Prof. R. H. Forbes, director of the Agricultural Experiment Station, October 25, 1904.

"I am convinced from its very shallow root system that it will probably only prove useful in a situation where it can be constantly and abundantly irrigated, altho it is possible that its rooting habits may be modified by new cultural conditions." (*Forbes.*)

11782. TRIFOLIUM ALEXANDRINUM. **Berseem.**

From Cairo, Egypt. Received thru Mr. George P. Foaden, secretary of the Khedivial Agricultural Society, October 26, 1904.

Fachl.

11783. NUPHAR POLYSEPALUM. **Red-anthered yellow water lily.**

From Bozeman, Mont. Presented by Dr. J. W. Blankinship. Received October 27, 1904.

"An unusual species of pond lily, with red anthers somewhat resembling large petals. As this has never, so far as we are aware, been brought under cultivation, it is thought by Mr. Peter Bisset, of "Twin Oaks," Washington, D. C., to be of possible value for breeding purposes. Coming from the northern latitude of Montana, it will prove perfectly hardy in any part of the United States." (*Fairchild.*)

11784. GARCINIA XANTHOCHYMUS.

From Peradeniya, Ceylon. Presented by Dr. John C. Willis, director of the Royal Botanic Gardens. Received October 29, 1904.

11785 to 11790. GARCINIA spp.

From Peradeniya, Ceylon. Received thru Dr. John C. Willis, director of the Royal Botanic Gardens, October 31, 1904.

11785. G. CAMBOGIA=G. COWA.

11786. G. MANGOSTANA.

11787. G. CAMBOGIA=G. COWA.

11788. G. XANTHOCHYMUS.

11789. G. SPICATA.

11790. G. MORELLA.

11791. VICIA SATIVA. **Common vetch.**

From Corvallis, Oreg. Received thru Mr. John Whitaker, October 31, 1904.

11792. CAESALPINIA BREVIFOLIA. **Algarobillo.**

From Santiago, Chile. Presented by Señor Salvadore Izquierdo. Received September 19, 1904.

The tanning material, which exists in the form of a resinous substance permeating the seed pods of this plant, has recently attracted the serious attention of European tanners, and the imports of it into Germany have of recent years very considerably increased. It is said to be very quick in its action and to be used in the tanning of delicate leathers. American tanners are not familiar with this tanning substance as yet, but some of the principal importers in New York are interested in its introduction. The shrub which bears the pods should be of particular interest to the extremely arid regions of the Southwestern States from the fact that it comes from the high altitudes of the Andes of northern Chile, where the season's rainfall is extremely light and where long periods of hot, dry weather occur. The plant has a long taproot, which will make it difficult to transplant, and it is recommended by Señor Izquierdo that the seeds be planted out where the plants are expected to remain. According to Señor Izquierdo's estimate, 2,000 plants could be easily grown on an acre of soil. Trees 6 to 8 years old are said to yield from 6 to 8 pounds of pods, which sell at a price ranging from 4 to 6 cents a pound. It is said that the plant is injured by heavy spring frosts, but is otherwise a robust, vigorous growing species. (See S. P. I., 10631.)

11793. ANDROPOGON SORGHUM. **Sorghum.**

From Durban, Natal, South Africa. Presented by Mr. R. W. Beningfield. Received August 24, 1904.

Mr. Beningfield says that this sorghum was self-sown in his garden in Durban.

11794. LILIUM LONGIFLORUM MULTIFLORUM. **Japanese lily.**

From New York, N. Y. Received thru Henry & Lee, November 9, 1904.

11795. SAPIUM SEBIFERUM. **Tallow tree.**

From China. Presented by Dr. C. L. Marlatt to Dr. B. T. Galloway. Planted in October, 1903.

Chinese name "Sa-men."

11796. CUCUMIS MELO. **Muskmelon.**

From California. Received in 1902. Exact source is not known.

Genuine *Bidwell Casaba* muskmelon seed, turned over to this Office by Mr. W. W. Tracy, sr.

11797. MACADAMIA TERNIFOLIA. **Australian nut.**

From Sydney, New South Wales. Presented by Mr. J. H. Maiden, director of the Botanic Gardens. Received November 5, 1904.

11798. PAPAVER SOMNIFERUM × BRACTEATUM. **Hybrid poppy.**

From Santa Rosa, Cal. Presented by Mr. Luther Burbank. Received November 7, 1904.

11799. THEVETIA CUNEIFOLIA. **Trumpet flower.**

From Guadalajara, Mexico. Presented by Mr. Federico Chisolm. Received November 7, 1904.

11800. PANICUM MAXIMUM. **Guinea grass.**

From Mayaguez, P. R. Received thru Mr. O. W. Barrett, of the Agricultural Experiment Station, November 8, 1904.

"Tho it produces viable seeds, this famous grass is usually propagated by division of the root clumps." (*Barrett.*)

11801 to 11996. PHOENIX DACTYLIFERA. **Date.**

From Hofhuf, El-Hasa, Turkish Arabia. Received thru Rev. S. M. Zwemer and secured by Mr. J. Calcott Gaskin, of the British Assistant Political Agency, Bahrein Island, Persian Gulf, November 7, 1904.

According to Mr. Gaskin's letter, the following varieties were received: *Khalas*, *Rezeiz*, *Shebibi*, *Khir*, *Hatmi*, *Sheishi*, *Mehmi*, *Kheneizi*, *Tenâjil*, and *Mejnaz*. These names, however, did not agree with those found on the labels accompanying the plants, which were placed there by the Arabs and most of which were lost. In order to avoid confusion each sucker was given a separate number in hopes that they might be correctly identified from descriptions of these varieties when they come into bearing.

11997. SEQUOIA WELLINGTONIA. **Bigtree.**

Origin unknown.

11998. VICIA FABA. **Horse bean.**

From Gembloux, Belgium. Received thru Dr. Ach. Grégoire, Institut Chimique et Bactériologique de l'État, March 10, 1905.

"Seed of the Holland variety of horse bean grown extensively in Belgium and Holland as a fodder crop. This bean in the cool summers of northern Europe makes a growth of several feet and produces a succulent fodder which is harvested after the beans have ripened, and run thru a chopping machine which prepares it for the stock. The analyses of Doctor Grégoire have shown that there is a material increase in the amount of nutritious substances in this bean late in the season, making it advisable to cut it only after the beans have fully matured. The small size of the bean of this Dutch variety makes it especially desirable for field experiments where the item of seed transport is an important one.

"These should be tried extensively in Alaska and the Northwestern States as an early summer crop. They are likely also to be of value as a cover crop for orchards in the Northern States. Experiments in Canada have proved this horse bean to be the best cover crop yet tried in that region. It holds snow, prevents drifting, and adds a large amount of humus to the soil. In Belgium these beans are drilled in about 6 or 8 inches apart and produce a thick stand some 3 or 4 feet in height." (*Fairchild.*)

11999 and 12000. NICOTIANA TABACUM. **Tobacco.**

From Constantinople, Turkey. Received thru Mr. Charles M. Dickinson, United States consul-general, March 9, 1905.

Seed from Xanthi district, as follows:

11999. Finest quality. **12000.** Medium quality.

12001 to 12018.

From Fort Hays, Kans. Received thru Mr. J. G. Haney, superintendent of the Branch Experiment Station, November 7, 1904.

12001 to 12015. TRITICUM VULGARE. **Wheat.**

12001. *Kharkof.* Grown from S. P. I. No. 7786. C. I. No. 2193.

12002. *Beloglino.* Grown from S. P. I. No. 7787. C. I. No. 1667.

12003. *Crimean.* Grown from S. P. I. No. 5636. C. I. No. 1437.

12004. *Theiss.* Grown from S. P. I. No. 5497. C. I. No. 1561.

12005. *Ulta.* Grown from S. P. I. No. 5638. C. I. No. 1439.

12006. *Ghirka.* Grown from S. P. I. No. 5637. C. I. No. 1438.

12007. *Crimean.* Grown from S. P. I. No. 5635. C. I. No. 1436.

12008. *Kharkof.* Grown from S. P. I. No. 7467. C. I. No. 1583.

12009. *Kharkof.* Grown from S. P. I. No. 5641. C. I. No. 1442.

12001 to 12018—Continued.

12010. *Crimean.*

Grown from seed originally imported in quantity of over 14,000 bushels from the Crimea in 1901 by the millers of Kansas and Oklahoma. C. I. No. 1559.

12011. *Banat.* Grown from S. P. I. No. 5496. C. I. No. 1560.

12012. *Bacska.* Grown from S. P. I. No. 5498. C. I. No. 1562.

12013. *Turkey.* Grown from C. I. No. 1558.

The best grade of this variety was grown near Halstead, Kans., from seed originally from the Crimea. A sample was planted in the experiment plats at Halstead in the autumn of 1901 for future experiment.

12014. *Weissenberg.* Grown from S. P. I. No. 5499. C. I. No. 1563.

12015. *Pesterboden.* Grown from S. P. I. No. 5500. C. I. No. 1563.

12016 to 12018. PANICUM MILIACEUM. **Broom-corn millet.**

12016. *Red Voronezh.* Grown from S. P. I. No. 9424. Original seed from Russia.

12017. *Black Voronezh.* Grown from S. P. I. No. 9425. Original seed from Russia.

12018. *Red Orenburg.* Grown from S. P. I. No. 9423. Original seed from Russia.

12019. GARCINIA XANTHOCHYMUS.

From Honolulu, Hawaii. Presented by Mr. G. P. Wilder. Received October 31, 1904.

"Fruits from a tree growing in the Government nursery of Honolulu. Sent for identification. This species is promising as a stock upon which to graft the mangosteen. Its fruits have an agreeable acid flavor." (*Fairchild.*)

12020. PORTULACARIA AFRA. **Spek-boom.**

From Durban, Natal. Received thru Messrs. Lathrop and Fairchild (No. 1097, February 8, 1903), November 9, 1904.

"A native South African shrub or small tree with succulent shoots which, according to von Müller, has been tested for many years in Australia, and which Mr. John M. Wood, of the Durban Botanic Garden, says has been sent to Algeria for experimental purposes. The shoots are said to be keenly relished by live stock, and the plant is reported to grow on dry, waste places without requiring attention. The cuttings take root easily, and von Müller says that the plant may even be propagated from the leaves. The range of this species is not known by the writer, but it will probably thrive only in a frostless region. The plant grows on hot, rocky slopes, preferably of doleritic nature. Plant on stony ridges or in sandy, desert soil. This species deserves to be given a wide distribution in regions where it will grow wild, and should be called to the attention of those interested in the cattle-range question of Arizona and Hawaii. These cuttings were donated by Mr. Wood." (*Fairchild.*)

12021. GARCINIA COCHINCHINENSIS.

From Durban, Natal. Received thru Messrs. Lathrop and Fairchild (No. 1102, February 8, 1903), November 9, 1904.

"This tree is a more vigorous one and easier to adapt to cultivation than *G. mangostana*, the true mangosteen. It is also a heavier bearer, and it is valuable in connection with experiments on the cultivation of the mangosteen in Porto Rico and Hawaii. The fruit is a golden-yellow color, one-seeded, with characteristic acid-flavored pulp. Most people do not care for the taste of this fruit, but the writer found the fruits most refreshing, and Mr. Wood, of the Botanic Gardens in Durban, who kindly donated the seeds, says that a former governor of Natal was very fond of them. Trees of this species should be raised in gardens in Florida, Porto Rico, and Hawaii accessible for breeding and grafting experiments. It may prove a good stock for the mangosteen." (*Fairchild.*)

12022. Garcinia mangostana. **Mangosteen.**

From Singapore, Straits Settlements. Presented by Mr. R. Derry, assistant superintendent of the Botanic Gardens. Received November 9, 1904.

12023. Hordeum distichum. **Two-row barley.**

From Fresno, Cal. Received thru Mr. George C. Roeding, December 22, 1904.

White Smyrna. Grown from S. P. I. No. 7969.

12024 and 12025. Sechium edule. **Chayote.**

From Saltillo, Mexico. Presented by Mr. J. R. Silliman at the request of Dr. Edward Palmer. Received November 7, 1904.

"An unusually large and fine variety of the chayote, representing two doubtful subvarieties, the one a darker green in color than the other and considered a sweeter sort. This is considered one of the best, and is indeed one of the most commonly grown vegetables in Mexico and Central America. The particularly large size of these varieties makes them promising for introduction into the warmer regions of this country. Bulletin No. 28 of the Bureau of Plant Industry gives a full description of the methods of planting, etc." (*Fairchild.*)

12026 and 12027. Zea mays. **Corn.**

From Saltillo, Mexico. Presented by Mr. J. R. Silliman. Received November 7, 1904.

12026. Genuine white *Mexican June.*

12027. Genuine red *Mexican June.*

"I am sending you four ears of genuine *Mexican June* corn grown by myself. This corn was planted in June and harvested about the 15th of October. The natives mix their seed very much and are not at all careful with it, so a great deal of the so-called *Mexican June* corn is not strictly such. Of the white variety there are two classes—one with white cob, the other with red cob. The grains are long and thin, the cob very small. It is a great drought resister and very sweet, the Mexican children chewing the stalks as they do sugar cane. Cattle are very fond of the green stalk and it produces a fine flow of rich milk in cows. The stalk reaches a height of 8 to 12 feet and is very slender; therefore we plant it quite thick. The dark variety, or *Maíz pinto*, is considered more hardy and better for resisting dry weather. It is shorter and more stocky in its growth. It is not so sweet. It will give a crop when all else fails. While not considered so fine for general use, it is equal to any for all stock." (*Silliman.*)

12028 to 12103. Paeonia spp. **Peony.**

From Langport, Somerset, England. Received thru Messrs. Kelway & Son, November 12, 1904.

Peonies imported for testing on the grounds of the Department of Agriculture at Arlington, Va., 76 varieties, as follows:

12028. *Maria Kelway.*
12029. *Agnes Mary Kelway.*
12030. *Lady Curzon.*
12031. *Princess Beatrice.*
12032. *Mrs. Chamberlain.*
12033. *Mountebank.*
12034. *Festiva Maxima.*
12035. *Princess Irene.*
12036. *Duke of Clarence.*
12037. *Lady Beresford.*
12038. *Limosel.*
12039. *Paderewski.*
12040. *Mad Calot.*
12041. *Torquemada.*
12042. *Glory of Somerset.*
12043. *Prince of Wales.*
12044. *Leonard Kelway.*
12045. *Dorothy Welsh.*
12046. *Alonzo.*
12047. *Grizzel Muir.*
12048. *Solfaterre.*
12049. *Lottie Collins.*

12028 to 12103—Continued.

12050. *Kelway's Queen.*
12051. *Helena.*
12052. *Joan Seaton.*
12053. *Princess Christian.*
12054. *Princess of Wales.*
12055. *Lady Gwendolen Cecil.*
12056. *Mrs. Asquith.*
12057. *Stanley.*
12058. *Prince George.*
12059. *Cognita.*
12060. *Duchess of Teck.*
12061. *Autumnus.*
12062. *Humei White.*
12063. *Summer Day.*
12064. *Moonbeam.*
12065. *Reine des Français.*
12066. *Whitleyi Plena.*
12067. *Prince Prosper.*
12068. *Lady Carrington.*
12069. *Sir T. J. Lipton.*
12070. *Princess May.*
12071. *Queen Victoria.*
12072. *Miss Salway.*
12073. *Bunch of Perfume.*
12074. *Millais.*
12075. *Tinted Venus.*
12076. *Miss Brice.*
12077. *Nominata.*
12078. *Calliphon.*
12079. *Duke of Devonshire.*
12080. *Baroness Schroeder.*
12081. *The Bride.*
12082. *Ella Christine Kelway.*
12083. *Cyclops.*
12084. *Sainfoin.*
12085. *Venus.*
12086. *Duchess of Sutherland.*
12087. *Mr. Manning.*
12088. *Queen of the May.*
12089. *Lady Cecilia Rose.*
12090. *Viscount Cross.*
12091. *Lyde.*
12092. *Water Lily.*
12093. *Princess Dhuleep Singh.*
12094. *Cendrillon.*
12095. *Alton Locke.*
12096. *Argus.*
12097. *Hesperus.*
12098. *Amiable.*
12099. *Lady Bramwell.*
12100. *Cavalleria Rusticana.*
12101. *Emily.*
12102. *Clothos.*
12103. *Opiter.*

12104. FREYCINETIA ARBOREA.

From Honolulu, Hawaii. Received thru Mr. J. E. Higgins, horticulturist, Agricultural Experiment Station, November 14, 1904.

12105 to 12107. NICOTIANA TABACUM. **Tobacco.**

From Brazil. Presented by Mr. M. Caluron, secretary of Agriculture, Railways, Industry, and Public Works of the State of Bahia. Received October 31, 1904.

12105. From Santa Anna.
12106. From Maragogipe.
12107. From S. Gonçalo dos Campos.

12108. CUCUMIS MELO. **Muskmelon.**

From Bairam Ali, Old Merv, Turkestan. Presented by Prof. R. W. Pumpelly. Received November 12, 1904.

12109. CUCUMIS MELO. **Muskmelon.**

From Samarkand, Turkestan. Presented by Prof. R. W. Pumpelly. Received November 12, 1904.

12110. CALOPHYLLUM INOPHYLLUM.

From Honolulu, Hawaii. Received thru Mr. Gerrit P. Wilder, November 15, 1904.

"Imported for use as a possible stock on which to graft the mangosteen, *Garcinia mangostana*." (*Fairchild.*)

12111 and 12112.

From Nice, Alpes-Maritimes, France. Presented by Dr. A. Robertson-Proschowsky. Received November 14, 1904.

12111. FICUS GLOMERATA. **Cluster fig.**

12112. OPUNTIA FICUS INDICA. **Prickly pear.**

12113. SOLANUM COMMERSONI. **Aquatic potato.**

From Santa Rosa, Cal. Presented by Mr. Luther Burbank. Received November 18, 1904.

"Tubers produced from plants grown in Mr. Burbank's experimental grounds from imported tubers, S. P. I. No. 10324. First generation removed from importation." (*Fairchild.*)

12114. JUGLANS REGIA. **Persian walnut.**

From Khojend, Russian Central Asia. Received thru Mr. E. Valneff, November 15, 1904.

12115. SECHIUM EDULE. **Chayote.**

From Mexico. Received thru Dr. Edward Palmer, November 21, 1904.

12116 to 12119. HORDEUM spp. **Barley.**

From Milwaukee, Wis. Presented by Mr. G. G. Pabst, president of the Pabst Brewing Company. Received November 9, 1904.

Four samples of barley grown from seed furnished by this Department, originally purchased in Svalöf, Sweden, from the General Swedish Seed-Breeding Institute, as follows:

12116. HORDEUM DISTICHUM NUTANS.

Prinsess. Grown from S. P. I. No. 10583 on the Summer farm, Wauwatosa, Wis. Yielded 13 bushels from 1 peck of seed.

12117. HORDEUM DISTICHUM NUTANS.

Chevalier II. Grown from S. P. I. No. 10584 on the Wasson farm, Granville, Wis. Yielded 5½ bushels from 1 peck, approximately.

12118. HORDEUM DISTICHUM NUTANS.

Hannchen. Grown from S. P. I. No. 10585 on the Wasson farm, Granville, Wis. Yielded 7 bushels from 1 peck of seed.

12119. HORDEUM DISTICHUM ERECTUM.

Primus. Grown from S. P. I. No. 10586 on the farm of Mr. John Schubert, Granville, Wis. Yielded 4 bushels from 1 peck of seed.

12120 to 12129. HORDEUM spp. **Barley.**

From Milwaukee, Wis. Presented by Mr. August Uihlein, secretary of the Schlitz Brewing Company. Received November 21, 1904.

Barley samples, as follows:

12120. HORDEUM TETRASTICHUM.

Albacete. Grown from S. P. I. No. 7427, originally from Spain.

12120 to 12129—Continued.

12121. HORDEUM DISTICHUM.

Grown from S. P. I. No. 7992, originally from Munich, Bavaria.

12122. HORDEUM HEXASTICHUM.

Grown from S. P. I. No. 8559, originally from Christiania, Norway.

12123. HORDEUM VULGARE.

Maraout. Grown from S. P. I. No. 9877, originally from Cairo, Egypt.

12124. HORDEUM sp.

Grown from California seed that was originally imported from Moravia.

12125. HORDEUM DISTICHUM NUTANS.

Hanna. Grown from S. P. I. No. 10402, originally from Austria.

12126. HORDEUM DISTICHUM NUTANS.

Prinsess. Grown from S. P. I. No. 10583, originally from Sweden.

12127. HORDEUM DISTICHUM NUTANS.

Chevalier II. Grown from S. P. I. No. 10584, originally from Sweden.

12128. HORDEUM DISTICHUM NUTANS.

Hannchen. Grown from S. P. I. No. 10585, originally from Sweden.

12129. HORDEUM DISTICHUM ERECTUM.

Primus. Grown from S. P. I. No. 10586, originally from Sweden.

12130. ORYZA SATIVA. **Rice.**

From Calcutta, India. Received thru I. Henry Burkill, esq., M. C., officiating reporter on economic products to the government of India, Indian Museum, October 21, 1904.

Rekikesh paddy seed, said to be the most valuable rice in India; grown on the Ganges where it emerges from the hills. A lowland variety of rice, said to be worth twenty times the price of ordinary rice.

12131. XANTHOXYLUM PIPERITUM. **Japanese pepper.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company, November 14, 1904.

12132 to 12134.

From Brighton, Utah. Received thru Mr. Ephraim Clawson, November 10, 1904.

12132. TRIFOLIUM ALEXANDRINUM. **Berseem.**

12133. AVENA SATIVA. **Oat.**

Grown from S. P. I. No. 10269, originally from Algeria.

12134. TRITICUM VULGARE. **Wheat.**

Chul-bidai. Grown from S. P. I. No. 9131, originally from Russia.

12135. VICIA ATROPURPUREA.

From Santa Clara, Cal. Received thru Mr. C. C. Morse in 1904.

12136 and 12137.

From London, England. Received thru Messrs. James Veitch & Sons (Limited), Chelsea, S. W., November 25, 1904.

12136. EUCOMMIA ULMOIDES. **Tu-chung.**

"*Tu-chung* is the name given by the Chinese to the tree which has been described by Professor Oliver in Hooker's Icones Plantarum as *Eucommia*

12136 and 12137—Continued.

ulmoides. The bark is the only part used, and is much esteemed by the Chinese as a drug, tonic and various other properties being assigned to it. It is described in nearly all Chinese works on materia medica and botany, the earliest mention of it being given in the Herbal of which the Emperor Shên-Nung is the reputed author, and which was committed to writing probably as early as the first century of our era.

"The tree is cultivated in small plantations in the mountainous regions of Szechwan, Hupeh, and Shensi; and from these districts it is brought to Hankow, the great mart for drugs that are produced in the western provinces. From this port about 100 tons are annually exported by steamer to the other treaty ports.

"*Eucommia ulmoides* has been grown out of doors at Kew without any protection for the last six years. It is a vigorous, free-rooting plant, and bears transplanting well. It will, I believe, thrive in any soil of average quality, but seems to prefer a rich, light loam. In such a soil, at Kew, young trees struck from cuttings five years ago are now 6 feet high and make shoots 2 feet to 2½ feet long in one season.

"It can be propagated easily by means of cuttings, and with these two methods may be adopted. The quickest method is to take pieces of the current season's growth, about 6 inches long, in late July or early August, insert them in pots of very sandy soil (the usual mixture for cuttings), and then place the pots in a house or frame where slight bottom heat can be afforded. The cuttings should be made of shoots in what gardeners term a "half-woody" condition. They will take root in a few weeks and can then, after a "hardening-off" period, be planted in nursery beds. The second method is to make the cuttings of the leafless wood in November and dibble them in sandy soil in a cool frame or out of doors under a *cloche*, or hand light. They will take root the following spring. This method is not so quick as the other, nor have we found it so sure." (*Kew Bulletin No. 1, 1904.*)

12137. DAVIDIA INVOLUCRATA. **Davidia.**

(See description of this beautiful tree under S. P. I. No. 16208.)

12138. MANGIFERA INDICA. **Mango.**

From Miami, Fla. Received thru P. H. Rolfs, November 23, 1904.

Gordon. Grown from S. P. I. No. 3705.

12139. NICOTIANA SANDERAE. **Flowering tobacco.**

From Philadelphia, Pa. Received thru Henry A. Dreer, Incorporated, November 25, 1904.

Carmine tuberose-flowered. Seed of a new hybrid Nicotiana raised in England. Described as forming bushy, much-branched plants 2 feet high, laden with flowers from base to summit. Flowers are a carmine red and fragrant, a single plant producing thousands. Resembles *N. affinis* in form, but has a short, stout tube and does not close up in daytime. (See No. 12358 for history.)

12140 to 12230.

From Yokohama, Japan. Received thru the Yokohama Nursery Company at the Plant Introduction Garden, Chico, Cal., October 31, 1904.

12140. ARALIA CORDATA. **Moyashi udo.**

Two-year-old roots.

12141. CITRUS sp. **Orange.**

Natsudaidai.

12142. EDGEWORTHIA GARDNERI. **Mitsumata paper plant.**

12143 to 12155. LILIUM spp. **Lily.**

12143. LILIUM ALEXANDRAE.

12144. LILIUM AURATUM.

12145. LILIUM BATMANNIAE.

12146. LILIUM BROWNII.

12140 to 12230—Continued.

12143 to 12155—Continued.

12147. Lilium cordifolium.
12148. Lilium concolor.
12149. Lilium hansoni.
12150. Lilium krameri.
12151. Lilium leichtlini.
12152. Lilium longiflorum.
12153. Lilium medeoloides.
12154. Lilium speciosum album.
12155. Lilium tigrinum.

12156. Miscanthus condensatus.

12157 to 12176. Nelumbium speciosum. **Lotus.**

12157. *Tenjiku ren.*
12158. *Tenjiku madara.*
12159. *Hichiyo ren.*
12160. *Taihaku ren.*
12161. *Toka ren.*
12162. *Higo shibori.*
12163. *Shokko ren.*
12164. *Tama usagi.*
12165. *Shiro manman.*
12166. *Nikko ren.*
12167. *Giozan ren.*
12168. *Kayo ren.*
12169. *Haku botan.*
12170. *Sakura ren.*
12171. *Usuyo ren.*
12172. *Seihaku ren.*
12173. *Shosho ren.*
12174. *Beni botan.*
12175. *Kinshi ren.*
12176. *Asahi ren.*

12177. Phyllostachys henonis. **Bamboo.**
12178. Phyllostachys mitis. **Bamboo.**
12179. Phyllostachys nigra. **Bamboo.**
12180. Phyllostachys quilioi. **Bamboo.**

12181 to 12230. Prunus pseudo-cerasus. **Flowering cherry.**

12181. *Koshioyama.*
12182. *Yaye hizakura.*
12183. *Oshokun.*
12184. *Haru arashi.*
12185. *Haria sau.*
12186. *Kurama yama.*
12187. *Higau shidare.*
12188. *Oshibayama.*
12189. *Beni gamo.*
12190. *Kongasau.*
12191. *Shira taye.*
12192. *Batan zakura.*
12193. *Strogetsu.*
12194. *Aki irosakura.*
12195. *Ben den.*
12196. *Asagi sakura.*
12197. *Kumagai sakura.*
12198. *Nara* (?) *sakura.*
12199. *Kirigaya.*
12200. *Kafugen.*
12201. *Benihigan.*
12202. *Washi-no-O.*
12203. *Kiuriuji.*
12204. *Onaden.*
12205. *Ichiyo.*
12206. *Gigo.*
12207. *Meigetsu.*
12208. *Jouioi.*
12209. *Hizakura* (single).
12210. *Mikuruma gaishi.*
12211. *Hosokawa nioi.*
12212. *Horinji.*
12213. *Hata sakura.*
12214. *Ochochin.*
12215. *Yokihi.*
12216. *Shiogama sakura.*
12217. *Toyama sakura.*
12218. *Kokishinuden.*

12140 to 12230—Continued.

12181 to 12230—Continued.

12219. *Nikoromoki.*
12220. *Hakukezan.*
12221. *Gozanoma nioi.*
12222. *Kikushidase.*
12223. *Taki nioi.*
12224. *Heto maru.*
12225. *Senreko.*
12226. *Totankisakura.*
12227. *Amano gawa.*
12228. *Fugenzo.*
12229. *Ouchizakma.*
12230. *Kiriu.*

12231. MEDICAGO SATIVA. **Alfalfa.**

From Vernon, Tex. Received thru Mr. J. A. White, November 28, 1904.

Turkestan. Grown from S. P. I. No. 9450.

12232. PISTACIA TEREBINTHUS. **Terebinth.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., November 23, 1904.

12233. HYACINTHUS ORIENTALIS ALBULUS. **Hyacinth.**

From New York, N. Y. Received thru J. M. Thorburn & Co., November 26, 1904.

12234. PHLEUM PRATENSE. **Timothy.**

From Tunis, Tunis. Presented by Prof. R. Gagey, of the Agricultural College. Received November 30, 1904.

12235. LILIUM PHILIPPINENSE. **Benguet lily.**

From Manila, P. I. Presented by Mr. Elmer D. Merrill. Received November 15, 1904. Collected by Mr. R. S. Williams, collector for the New York Botanical Gardens in the province of Benguet, P. I.

12236 and 12237.

From Clearbrook, Whatcom County, Wash. Presented by Mr. George Gibbs. Received December 2, 1904.

12236. ACER MACROPHYLLUM. **Oregon maple.**

"Handsome, roundheaded tree, remarkable for its large foliage. Not hardy in the North. In western Washington these maples grow from 2 to 5 feet the first year from seed. They are the finest of street shade trees, and stand any amount of wind. They grow 60 feet high at Clearbrook and reach 3 to 6 feet in diameter." (*Gibbs.*)

12237. THUJA GIGANTEA. **Giant arbor vitae.**

12238. LANSIUM DOMESTICUM. **Doekoe.**

From Buitenzorg, Java. Presented by Doctor Treub. Received December 5, 1904.

"One of the most refreshing fruits of the Dutch East Indies, which deserves to be well known in the Western Tropics, but which hitherto seems to have been quite overlooked." (*Fairchild.*)

"A low-growing tree of the East Indies which is cultivated to some extent for its fruit, which is known in Java and Malakka as 'Lanseh' fruit and is much esteemed for its delicate aroma. The pulp is of somewhat firm consistence and contains a cooling, refreshing juice." (*Jackson in Trans. Linn. Soc., XIV, 1 (1823), 115.*)

12239. AGAPANTHUS UMBELLATUS.

From Washington, D. C. Received thru the National Botanic Garden in 1902.

12240. MANGIFERA INDICA. **Mango.**

From Manatee, Fla. Received thru Mr. A. J. Pettigrew, December 7, 1904.

Peters No. 1. Grown from S. P. I. No. 3706.

12241. MANGIFERA INDICA. **Mango.**

From Mangonia, Fla. Presented by Rev. E. E. Gale. Received December 7, 1904.

Père Louis. Grown from S. P. I. No. 3707.

12242. BERBERIS FREMONTII.

From Tucson, Ariz. Received thru Mr. D. G. Fairchild at the Plant Introduction Garden, Chico, Cal., September 10, 1904.

"Seeds from plants growing on the experiment station grounds. A beautiful desert form for breeding with *B. thunbergii*." (*Fairchild.*)

12243. PISTACIA VERA. **Pistache.**

From northern Syria. Received thru Mr. W. T. Swingle at the Plant Introduction Garden, Chico, Cal., October 6, 1904.

"These seeds were grown from trees grafted on *P. mutica* and were obtained from a Mr. Nazar, whose people graft the pistache on this species in the dry country near the Euphrates River." (*Swingle.*)

12244 to 12302.

A collection of bulbs secured for experimental work in the Department bulb garden.

12244 to 12265.

From Hillegom, Haarlem, Holland. Received thru Vander Schoot & Son, October, 1903.

12266 to 12276.

From London, England. Received thru William Bull & Sons, November, 1903.

12277 to 12279.

From Clearbrook, Wash. Received thru Mr. George Gibbs, November, 1904.

12280 to 12298.

From Guernsey, England. Received from Hubert & Co., September, 1904. Purchased thru Mr. Nicholas Le Page, Mount Vernon, N. Y.

12299 to 12302.

From Ettrick, Va. Received thru Poat Brothers, October, 1904.

12303. AVENA SATIVA. **Oat.**

From Brookings, S. Dak. Received thru Mr. H. I. Stearns, December 8, 1904.

Sixty-Day. Grown from S. P. I. No. 5938.

12304. SECHIUM EDULE. **Chayote.**

From New Orleans, La. Presented by the J. Steckler Seed Company. Received November 23, 1904.

12305. MANGIFERA INDICA. **Mango.**

From West Palm Beach, Fla. Received thru Mr. John B. Beach, December 9, 1904.

Mulgoba.

12306. Gossypium sp. **Cotton.**

From the Philippine Islands. Presented by Dr. B. D. Halsted, Agricultural Experiment Station, New Brunswick, N. J. Received December 6, 1904.

Kaki. These seeds were collected by Mr. A. Ellicott Brown, of the Marine Corps, and sent to Doctor Halsted.

12307 to 12357. Salix spp. **Willow.**

From Ottawa, Canada. Presented by Dr. William Saunders, director of the Central Experimental Farm. Received December 14, 1902.

A collection of species and varieties of willow growing in the arboretum of the Central Experimental Farm at Ottawa. The nomenclature given is that recognized by the Experimental Farm.

12307. Salix caesia pendula zabeli.

12308. Salix nigricans prunifolia.

12309. Salix daphnoides pomerania femina.

12310. Salix triandra (S. lappeana).

12311. Salix purpurea scharfenbergensis.

12312. Salix casiandra lancifolia.

12313. Salix fragilis basfordiana.

12314. Salix rubra forbyana.

12315. Salix argentea aurita.

12316. Salix nigricans moabitica.

12317. Salix bataviae.

12318. Salix alba britzensis.

12319. Salix nigricans cotinifolia.

12320. Salix alba vitellina.

12321. Salix daphnoides femina.

12322. Salix petiolaris.

12323. Salix seringeana.

12324. Salix alba vitellina.

12325. Salix erdingeri.

12326. Salix nigricans ansoniana.

12327. Salix purpurea urabensis.

12328. Salix undulata.

12329. Salix viminalis.

12330. Salix daphnoides mascula.

12331. Salix blanda (S. babylonica × fragilis).

12332. Salix bicolor laureana.

12333. Salix decipiens.

12334. Salix alba vitellina aurantiaca.

12335. Salix purpurea lambertiana.

12336. Salix cinerea tricolor.

12337. Salix ambigua.

12338. Salix voronesh.

12339. Salix smithiana acuminata (S. dasyclados).

12340. Salix pellita.

12341. Salix repens argentea.

12342. Salix longifolia.

12343. Salix laurina.

12344. Salix babylonica.

12345. Salix cinerea repens.

12346. Salix fragilis ammaniana.

12347. Salix alba argentea.

12348. Salix nigricans menthaefolia.

12349. Salix rosmarinifolia.

12350. Salix nigricans.

12351. Salix mollissima.

12352. Salix viminalis superba.

12353. Salix hippophaefolia undulata.

12354. Salix spaethi.

12355. Salix cordata vestita.

12356. Salix alba vitellina nova.

12357. Salix nigricans viburnoides.

12358. NICOTIANA SANDERAE. **Flowering tobacco.**

From New York, N. Y. Received thru J. M. Thorburn & Co., December 14, 1904.

Carmine-flowered. "This variety is the result of crossing the dwarf purple-flowered *N. forgetiana*, from Brazil, with *N. affinis*, the well-known, fragrant white-flowered garden annual." (*Sander & Sons.*)

12359. LATHYRUS ODORATUS. **Sweet pea.**

From Covent Garden, W. C., London, England. Received thru Watkins & Simpson, 12 Tavistock street, December 9, 1904.

Gladys Unwin.

12360. AFZELIA QUANZENSIS.

From Cape Town, Cape Colony, Africa. Received thru Dr. Peter MacOwan, government botanist, November 28, 1904.

12361. LATHYRUS SYLVESTRIS. **Flat pea.**

From New York, N. Y. Received thru J. M. Thorburn & Co., November 21, 1904.

12362 and 12363.

From Bangkok, Siam. Presented by His Excellency Phya Akharaj Varadhara, the Siamese minister, to Dr. B. T. Galloway. Received December 2, 1904.

Plants used extensively in Bangkok as a condiment.

12362.	**12363.**
Krawan.	(No name given.)

12364. LILIUM GIGANTEUM. **Lily.**

From New York, N. Y. Received thru Henry & Lee, December 13, 1904.

12365. PANICUM MAXIMUM. **Guinea grass.**

From Mayaguez, P. R. Received thru the Agricultural Experiment Station, December 21, 1904.

12366. SECHIUM EDULE. **Chayote.**

From New Orleans, La. Received thru the J. Steckler Seed Company, December 16, 1904.

12367. DAHLIA sp. **Dahlia.**

From "La Trinidad," Guerrero, Mexico. Received thru Mr. Federico Chisolm, December 13, 1904.

12368. GLADIOLUS GANDAVENSIS. **Gladiolus.**

From Philadelphia, Pa. Received thru Henry A. Dreer, Incorporated, December 16, 1904.

White Lady.

12369. PACHYRHIZUS sp.

From Santa Maria del Rio, Mexico. Received thru Dr. Edward Palmer, December 21, 1904.

"There are two forms of this Pachyrhizus, one called *Agua* (water) and the other *Leche* (milk). These two forms have been long recognized, but not as separate species. At Santa Maria del Rio I saw several fields of this plant cultivated on ridges so that the plants might be irrigated. I was informed that both forms were grown in the same patch and could not be distinguished either by their foliage or flowers, and that it was only by tasting the roots themselves that the difference could be detected. Both varieties are considered equally valuable. They are eaten raw, especially by travelers on long tours thru the drier portions of the country, as their watery character makes them valuable for quenching one's thirst. They are also considered nutritious and are said to make good pickles. It is possible that they may also be cooked as turnips are and could be cultivated in regions where the turnip will not thrive." (*Palmer.*)

12370. Iris sp. **Iris.**

From Fairfield, Wash. Collected by Mr. A. J. Pieters, August 21, 1904.

12371 to 12393. **Abyssinian seeds.**

From Abyssinia, Africa. Received thru Hon. Robert P. Skinner, commissioner of the United States to Abyssinia, December 15, 1904.

A collection of seeds made for Mr. Skinner under his direction by Mr. Eugène Carette Bouvet. This collection is supplementary to the collection received June 3, 1904, Nos. 11039 to 11119, from the same source. The names given are transcribed from those written upon the original packages.

12371.	Andropogon sorghum.	**Sorghum.**
12372.	Andropogon sorghum.	**Sorghum.**
12373.	Andropogon sorghum.	**Sorghum.**
12374.	Andropogon sorghum.	**Sorghum.**
12375.	Hordeum sp.	**Barley.**
12376.	Hordeum sp.	**Barley.**
12377.	Triticum sp.	**Wheat.**
12378.	Eragrostis abyssinica.	**Teff.**
12379.	Triticum dicoccum.	**Emmer.**
12380.	Coffea sp.	**Wild coffee.**
12381.	Coffea sp.	**Harrar coffee.**
12382.	Coffea sp.	**Cultivated coffee.**
12383.	Zea mays.	**Corn.**
12384.	Zea mays.	**Corn.**
12385.	Eragrostis abyssinica.	**Teff.**
12386.	Eragrostis abyssinica.	**Teff.**
12387.	Sesamum indicum.	**Sesame.**
12388.	Pimpinella anisum.	**Anise.**
12389.	Guizotia oleifera.	
12390.	Eleusine coracana.	
12391.	Linum sp.	**Flax.**
12392.	Pisum sativum.	**Pea.**
12393.	Cicer arietinum.	**Chick-pea.**

12394. Beta vulgaris. **Sugar beet.**

From New York, N. Y. Received thru Mr. Albert Bohm, Wool Exchange Building, West Broadway and Beach streets, December 21, 1904.

Said by Mr. Bohm to be more subject to outside influences than ordinary seed.

12395. Physalis sp. **Ground cherry.**

From Columbus, Ohio. Received thru the Livingston Seed Company, December 23, 1904.

Ordered for Mr. Burbank's experiments.

12396. PHYSALIS sp. **Purple ground cherry.**

From Columbus, Ohio. Received thru the Livingston Seed Company, December 24, 1904.

12397. ZINNIA ELEGANS. **Zinnia.**

From Naples, Italy. Received thru Mr. Max Herb, successor to Herb & Wulle, 24–36 via Trivio, December 24, 1904.

Zinnia elegans, fl. pl. crispa, extra; described in volume 19 of Möller's Deutsche Gärtner-Zeitung, p. 475.

12398. MEDICAGO SATIVA. **Alfalfa.**

From Fort Collins, Colo. Received thru Mr. Peter Anderson, December 28, 1904.

12399 and 12400. GLYCINE HISPIDA. **Soy bean.**

From Amherst, Mass. Received thru the Hatch Experiment Station, December 28, 1904.

12399. Grown from S. P. I. No. 9407.

12400. Grown from S. P. I. No. 9408.

12401. IPOMOEA sp.

From Miami, Fla. Received thru Prof. P. H. Rolfs, Subtropical Laboratory, December 23, 1904.

A pink-flowered Ipomœa grown from seed secured by Professor Rolfs in Cuba or Jamaica.

12402 and 12403. OPUNTIA FICUS-INDICA GYMNOCARPA. **Tuna.**

From Nice, France. Received thru Dr. A. Robertson-Proschowsky, December 27, 1904.

"In a letter of December 12, Doctor Proschowsky remarks: 'The young joints of this species have small spines, but these fall off in the second year. As regards the fruits, it is three years that they have been produced in my garden, and they have always been absolutely spineless without any of those almost microscopic spicules which are the great objection to the fruits of Opuntia in general.' The present year only three fruits were developed, and the seeds sent, No. 12403, are from one of those fruits. As this small number of seeds represents the total number contained in the fruit it is evident that the variety, in addition to bearing spineless fruits, bears fruits with comparatively few seeds in them. Doctor Proschowsky further remarks that this Opuntia is the largest, quickest growing, and most picturesque of all of the Opuntias which he has ever seen." (*Fairchild.*)

12404. CEREUS VALIDUS.

From Nice, France. Received thru Dr. A. Robertson-Proschowsky, December 27, 1904.

"A tall, picturesque plant, which produces fruit the size of a goose egg and of a beautiful magenta color. These fruits are absolutely without spicules and of very good taste. Doctor Proschowsky remarks that he knows of no other fruit which is so 'melting,' and it resembles much the 'snows' sold in Latin-American countries, consisting of real snow mixed with some fruit juice or sugar." (*Fairchild.*)

12405 to 12407.

From New York, N. Y. Received thru J. M. Thorburn & Co., December 28, 1904.

12405. HOLCUS LANATUS. **Velvet grass.**

A forage grass of poor quality, but capable of growing well on dry soil.

12405 to 12407—Continued.

12406. SPERGULA ARVENSIS. **Spurry.**

An annual plant of especial value on dry, sandy land.

12407. ORNITHOPUS SATIVUS. **Serradella.**

An annual legume for growing on dry, sandy land.

12408. ULEX EUROPAEUS. **Gorse, whin, or furze.**

From Dublin, Ireland. Received thru Hogg & Robertson, December 29, 1904.

"The cultivation of this plant is suited only to waste lands which are unfit for more profitable cultures. In portions of northern France, the Netherlands, England, and Ireland the plant is utilized successfully as fodder, being cut and passed thru a special shredding machine, which reduces the spines to a harmless pulp. In the Madeira Islands, J. B. Blandy informed me that it was very keenly relished by cattle and furnished an excellent fodder for milk-producing purposes. The plant, altho not a tender species, will probably not be hardy in the Northwest, but should be tried in regions with a climate similar to that of England and Ireland, on rocky, barren hillsides where other plants will not thrive." (*Fairchild.*)

12409. MEDICAGO SATIVA. **Alfalfa.**

From Ogden, Utah. Received thru the C. A. Smurthwaite Produce Company, December 30, 1904.

This seed was grown on the ranch of Mr. E. M. Brimall, Diamond Fork, Spanish Fork Canyon, Utah County, Utah, on land without irrigation, above water line in section 1, township 9 south, range 4 east. This land has grown alfalfa seed for nineteen years in succession, and this seed is from the nineteenth crop.

12410 to 12448.

Drug and medicinal seeds and plants ordered for the cooperative work conducted by Dr. R. H. True, of this Department.

12410 to 12422.

From Paris, France. Received thru Vilmorin-Andrieux & Co., 4 Quai de la Mégisserie, December 29, 1904.

12410. ACONITUM NAPELLUS.
12411. ACONITUM NAPELLUS.
12412. HYOSCYAMUS NIGER.
12413. LAVANDULA VERA.
12414. CARUM CARUI.
12415. PYRETHRUM ROSEUM.
12416. PYRETHRUM CINERARIAEFOLIUM.
12417. THYMUS VULGARIS.
12418. ROSMARINUS OFFICINALIS.
12419. SATUREJA HORTENSIS.
12420. DELPHINIUM STAPHISAGRIA.
12421. ECBALLIUM ELATERIUM.
12422. ORIGANUM VULGARE.

12423. SALVIA OFFICINALIS. **Sage.**

From Philadelphia, Pa. Received thru W. Atlee Burpee & Co., November 30, 1904.

Broad-leaved.

12424 and 12425. ECHINACEA ANGUSTIFOLIA.

From Manhattan, Kans. Received thru Mr. H. W. Baker, November 28, 1904.

12424. Plants. **12425.** Seeds.

12410 to 12448—Continued.

12426 to 12441.

From Erfurt, Germany. Received thru Haage & Schmidt, December 24, 1904.

12426. Ecballium elaterium.
12427. Aconitum napellus.
12428. Aconitum napellus.
12429. Hyoscyamus niger.
12430. Lavandula vera.
12431. Carum ajowan.
12432. Origanum vulgare.
12433. Delphinium staphisagria.
12434. Pyrethrum roseum.
12435. Pyrethrum cinerariaefolium.
12436. Colchicum autumnale.
12437. Thymus vulgaris.
12438. Rosmarinus officinalis.
12439. Satureja hortensis.
12440. Bryonia alba.
12441. Bryonia dioica.

12442. Cassia angustifolia. **Senna.**

From Corpus Christi, Tex. Received thru Mr. H. H. Fisher, October 31, 1904.

12443 to 12446. Panax ginseng. **Ginseng.**

From Cuba, N. Y. Received thru Bates Ginseng Gardens, October 31, 1904.

12443. One-year-old roots.
12444. Two-year-old roots.
12445. Three-year-old roots.
12446. Germinated seed.

12447. Monarda fistulosa. **Wild bergamot.**

From Rochester, Mich. Received thru Mr. Wilfred A. Brotherton, November 14, 1904.

12448. Monarda punctata. **Horsemint.**

From La Crosse, Wis. Received thru Dr. E. C. Swarthout, October 28, 1904.

12449 and 12450. Dahlia spp. **Dahlia.**

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, December 27, 1904.

Seeds collected near Ixtlahuacan del Rio, Jalisco, Mexico, northwest from Guadalajara.

12449. White.
12450. Striped.

12451. Eutrema wasabi. **Japanese horse-radish.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company, December 29, 1904.

(Described in detail in Bulletin No. 42 of the Bureau of Plant Industry.)

12452. Aralia cordata. **Kan udo.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company, December 29, 1904.

(For description, see Bulletin No. 42 of the Bureau of Plant Industry.)

12453 to 12547. Oryza sativa. Rice.

"Samples of rice received in answer to requests made of the various persons furnishing same, for testing in connection with the efforts now being made for the purpose of finding a variety resistant to the disease known as rotten-neck, threatening the rice-growing industry in the Carolinas." (*Fairchild.*)

12453 to 12463. **Rice.**

From Paris, France. Presented by Vilmorin-Andrieux & Co. Received July 29, 1904.

Samples of unhulled rice as follows:

12453. *Piemontese* rice, *Novarese.* One of the most valued for its yield and its quality. It is, however, grown in Lombardy on soil only which has carried a rice crop the previous season, as on fresh land it easily takes the disease called "brusone."

12454. *Piemontese* rice, *Bertone.* Usually grown on fresh land, is resistant to the "brusone," and the hulled rice is inferior to the *Novarese.*

12455. *Piemontese* rice, *Javanese.* Thrives on all kinds of land. It is pretty resistant to "brusone," but is very late, lacks quality and sheds its seeds too easily when being cut.

12456. *Piemontese* rice, *nostrano.* Takes too easily the disease "brusone," and is consequently little grown in Lombardy. It is somewhat used in the perpetual rice fields of the Po Valley, where it seems to be more resistant.

12457. *Piemontese* rice, *leoncino.* Very productive Japanese rice, of good quality, with a golden spike. Recommended for wet, compact, rich land.

12458. *Piemontese* rice, *francone.*

12459. *Egyptian* rice, *fino.*

12460. *Egyptian* rice, *sultanie.*

12461. *Egyptian* rice, *yamani.*

12462. *Dry Mountain* rice.

12463. Dry rice from Manchuria.

12464 to 12478. **Rice.**

From Colombo, Ceylon. Presented by Dr. C. Drieberg, superintendent of School Gardens. Received October 21 and 24, 1904.

12464. *Kurusivru* paddy. White grain in black husk. From Kegalle district.

12465. *Muttusamba* paddy. Superior variety for table use. From Kegalle district.

12466. *Kaiurusamba* paddy. From Kegalle district.

12467. *Kirinaran* paddy. From Bentota district.

12468. *Suduve* paddy. From Bentota district.

12469. *Yal-tatu-hel* paddy. From high elevation, Uva Province.

12470. *Mudu-kiri-hel* paddy. From high elevation, Uva Province.

12471. *Ceylon Carolina* paddy. From Hauwella, 30 miles inland from Colombo.

12472. *Ceylon Carolina* paddy. From Mount Lavinia, 7 miles south of Colombo.

12473. *Kiusui* (Japanese) paddy. Grown in the Government Stock Garden.

12474. *Ingrese we.* From Elakake, 4 miles inland from Bentatte, about halfway from Colombo to Galle.

12475. *Kuru-vi* paddy. From Madampe, Northwestern Province.

12453 to 12547—Continued.

12464 to 12478—Continued.

12476. *Rata-vi* paddy. From Madampe, North Central Province. Somewhat mixed with native varieties.

12477. *Puluk-hsmban* paddy. From Kegalle district.

12478. *Rat-hel* paddy. Up-country grain, inclined to be white, tho husk is rather dark.

12479 to 12488. **Rice.**

From Singapore, Straits Settlements. Presented by Mr. R. Derry, assistant superintendent of the Botanical Gardens. Received November 9, 1904.

12479. *Arong* paddy. Used for making flour, and when cooked is hard and white. Always used by the natives.

Mr. Derry uses the term "paddy" to signify wet-land rice, and the term "pulot" to indicate dry-land rice.

12480. *Krencho* (or *Keroncho*) paddy. Used same as 12479; price same also.

12481. *Chemara-putri* paddy. Used same as 12479; price same also.

12482. *Seri-bumi* paddy. First-class flour for making cakes; pure white when cooked.

12483. *Seroupe* paddy. First-class flour for cakes and for the natives.

12484. *Radin* paddy. Used for rice by the natives.

12485. *Bunga-melong* pulot. Used for making cakes of any kind, but when cooked is hard and white.

12486. *Seong-ular* pulot. Use and price same as 12485.

12487. *Merah* pulot (or paddy). Use and price same as 12485.

12488. *Manek* paddy. Used only for feeding turtledoves and ringdoves.

12489 to 12512. **Rice.**

From Georgetown, Demerara, British Guiana. Presented by Mr. B. Howell Jones. Received in August, 1904.

12489. Rice of the kind usually grown in British Guiana.

12490 to 12511.

Samples experimentally grown at the Georgetown Botanical Gardens from imported Ceylon rice. They are distinguished by number only. Nos. 12490 to 12503 are "Ordinary rice." Nos. 12504 to 12511 are what are known as "Hill rice."

12512. From the Berbice River district.

12513 to 12515. **Rice.**

From Bulkeley, Ramleh, Egypt. Presented by Hon. Lionel Sandars. Received during the summer of 1904.

12513. *Yaban* (or *Yapani*) paddy. From Daira Draneht Pasha, Kafr-el-Dawar.

12514. *Soultani* (or *Sultani*) paddy. Same source as 12513.

12515. *Sabaini* (or *Sabini*) paddy. Same source as 12513.

12516 to 12518. **Rice.**

From Siam. Presented by the Arracan Company, of Bangkok, thru Dr. T. Heywood Hays, of that place. Received October 21, 1904.

12516. *Naichonchisee* paddy. Usually considered the finest quality in Bangkok.

12517. *Sakakrang* paddy. Good quality; long grain.

12518. *Paknampho* paddy. Medium quality.

12453 to 12547—Continued.

12519 to 12520. **Rice.**

From Italy. Presented by Messrs. Dammann & Co., San Giovanni a Teduccio, near Naples. Received October 3, 1904.

12519. *Italian.* No special name given.

12520. *Italian.* No special name given; probably the same kind as 12519.

12521. *Thessaly.* **Rice.**

From Greece. Presented by Mr. S. Xanthopaulo, Station Agricole, Patras. Received in August, 1904.

12522. **Rice.**

From Brazil. Presented by Consul Louis H. Aymé, Para. Received in August, 1904.

Rice paddy, like that grown in the districts of Guama and Irituba, in the State of Maranhac, Brazil, in a black loam, either overlying or mixt with sandy gravel and sandstone. The rice is called *Carolina.*

12523 and 12524. **Rice.**

From German East Africa. Presented by Mr. Udo von Katte, Plantage Kigome, Bezirk Tanga. Received October 5, 1904.

12523. *Nondro* paddy.

12524. *Kikanda* paddy.

12525 to 12547. **Rice.**

From Java. Presented by Mr. Charles A. Franc, Soerabaya, Java, Dutch East Indies. Received November 17, 1904.

12525 to 12540. *Ampenan* paddy.

12541. *Magetan* paddy.

12542. *Pekalongan* paddy.

12543. *Pekalongan* paddy.

12544. *Solo "A"* paddy.

12545. *Solo "B"* paddy.

12546. *Djember* paddy.

12547. *Djember* paddy.

12548. CRATAEGUS sp. (?)

From City of Mexico, Mexico. Received from Mr. G. Clark, thru Mr. G. Onderdonk, of Nursery, Tex., December 31, 1904.

This species of *Crataegus* is used in different parts of Mexico as a stock upon which the European and American type of pears are grafted. In a letter of May 30, 1904, Mr. Onderdonk describes the use of this stock as follows: "While there is to be found an occasional young *tijocate* growing in a cultivated lot with intention of being made a stock for pears by grafting where it stands, yet no nurseries of it exist. It grows wild in the most forbidding situations. The earliest fruits begin to ripen about the last of July, while the largest number mature about October or November. I saw many fine old pear trees in different parts of Mexico on *tijocate* stock, and for the European and American type of pears there can be *no better stock than tijocate.*"

12549. MEDICAGO SATIVA. **Alfalfa.**

From Buenos Aires, Argentina. Received thru Mr. Ronaldo Tidblom, August 12, 1905.

12550. POA PRATENSIS. **Kentucky bluegrass.**

From Winchester, Ky. Received thru Mr. D. S. Gay, December 2, 1904.

12551. (Undetermined.)

From Central Africa. Presented by Mrs. Anita N. McGee, 1620 P street, Washington, D. C. Received thru Mr. David Fairchild, December 31, 1904.

A single plant, said to be the first of its kind ever brought to America and to belong to the order Scitamineae. The plant was introduced by Mr. Vernon, who brought the Pigmies to the Louisiana Purchase Exposition. (*Fairchild.*)

12552. AMYGDALUS COMMUNIS. **Almond.**

From Niles, Cal. Received thru the California Nursery Company, January 4, 1905.

Jordan. "These trees are from stock introduced by Mr. John Rock, seed of which was submitted to the United States consul in Malaga, and pronounced the true Jordan type. They are not from trees of stocks introduced by this Department." (*Fairchild.*)

12553 to 12556. TERMINALIA sp. **Myrobalan.**

From New York, N. Y. Received thru A. Klipstein & Co., 122 Pearl street, July 11 and August 1, 1904.

12553. *Jubblepore*, No. 1.

12554. *Bhimleys*, No. 2.

12555. *Jubblepore*, No. 1.

12556. *Bimley*, No. 2.

"The fruits of the myrobalan contain one of the best tanning substances in the world. Large quantities of myrobalans are exported from India to England, and it is believed that the cultivation of these trees, of which there are evidently several species, may be a lucrative one in parts of California. The tree is known to be a drought-resistant species and suited to extremely hot climates. Some of the species are trees and, consequently, may withstand the slight cold to which they will be subjected in California." (*Fairchild.*)

12557 and 12558. ZEA MAYS. **Sweet corn.**

Selected seed corn for use in a series of experiments to determine the effect of soil, location, etc., on standard varieties of sweet corn, the idea being to distribute this seed to reliable parties in different localities, and to secure from them samples of the product for examination and further distribution.

12557. Received from Mr. A. N. Clark, Milford, Conn., March 25, 1904.

Stowell's Evergreen.

12558. Received from Mr. A. N. Clark, Milford, Conn., March 25, 1904.

Early Crosby.

12559 to 12561. ZEA MAYS. **Sweet corn.**

From Falls Church, Va. Received thru Mr. Upton Galligher, March 25, 1904.

12559. *Malakof.* Grown in 1903 from S. P. I. No. 9357.

12560. *Malakof.* Selected ears.

12561. *Malakof.* Grown in 1903 from S. P. I. No. 9356

12562. ZEA MAYS. **Sweet corn.**

From Auburn, N. Y. Received thru Mr. G. W. Boynton, May 6, 1904.

Malakof. Seed from selected amber ears, probably from same lot as S. P. I. No. 10401.

12563. ZEA MAYS. **Sweet corn.**

From Garrettsville, Ohio. Received thru Mr. George J. Streator, May 6, 1904.

Malakof. Seed from selected ears.

12564. DAHLIA sp. **Dahlia.**

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, December 30, 1904.

12565. LILIUM sp. **Lily.**

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, January 4, 1905.

12566 to 12576.

From Tunis, North Africa. Secured by Mr. Thomas H. Kearney during his exploration of Tunis. Received January 4, 1905.

A collection of economic plants as follows:

12566 to 12568. PUNICA GRANATUM. **Pomegranate.**

From the premises of M. Robert, Kalaâ Srira, Susa.

12566. Red fruited.

12567. *Chelfi.* White fruited.

12568. White-fruited variety from Gabes.

"These pomegranates are the best sorts grown in Tunis. The first two seem to be peculiar to Susa." (*Kearney.*)

12569 to 12573. OLEA EUROPAEA. **Olive.**

From the premises of M. Robert, Kalaâ Srira, Susa.

12569. *Baroumi* (fruit mucronate).

12570. *Baroumi* (fruit not mucronate).

"This is the largest olive in the country, and M. Robert's is about the only place where it can be secured." (*Kearney.*)

12571. *Zarazi* (?).

"This is a medium-sized olive and is the most-generally planted preserving olive in the country, being common even to the oases of the Jerid. It is probably a hardy sort, and one easily adapted to a variety of conditions. As soon as I see M. Minangoin I shall find out definitely if it is actually the *Zarazi* that I have obtained." (*Kearney.*)

12572. *Bidh Hammam.*

This is one of the largest olives of Tunis.

12573. *Chemlali.* From Sfax, Tunis.

"It is doubtful if this is a desirable sort, as the oil produced from it is said to contain too much margarin." (*Kearney.*)

12574 to 12576. MESEMBRYANTHEMUM spp.

From Sfax, Tunis.

12574. With yellow flowers.

12575. With rose-colored flowers.

12576. With rose-violet flowers.

"The first two kinds are used here as border plants, and also for holding banks at roadsides, while the last is made use of in the Jardin Publique as a lawn plant. These grow well in this dry soil without attention after the first two weeks after planting." (*Kearney.*)

12577. POTERIUM SANGUISORBA. **Burnett.**

From New York, N. Y. Received thru J. M. Thorburn & Co., January 5, 1905.

12578 to 12668. SOLANUM TUBEROSUM. **Potato.**

From Europe. Secured by Prof. L. R. Jones, of the University of Vermont, during a trip thru the potato-growing regions of Europe in 1904. Notes by Professor Jones.

12578 to 12596.

From Berlin, Germany. Received thru the Potato Culture Station, December 14, 1904.

12578.

Geheimrat Theil. (L. R. Jones's No. 1.) Originated by Richter. Skin white, flesh white. (See description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, p. 53.)

Recommended by Professor Eckenbrecher and independently by his foreman, Mr. Goese, as showing a high degree of disease resistance and being a good general-purpose potato.

12578 to 12668—Continued.

12578 to 12596—Continued.

12579.

Sophie. (L. R. Jones's No. 2.) Originated by Cimbal. White skin, yellowish-white flesh. (See description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, pp. 37 and 53.)

Recommended by Professor Eckenbrecher as one of the most productive of table varieties. Fairly resistant to disease; suited to various soils.

12580.

Dabersche. (L. R. Jones's No. 3.) Originator unknown. Skin pale red, flesh white-yellowish. (For further notes, see any of reports of Deutsch. Kart.-Kult.-Stat., e. g., 1903, pp. 34 and 53.)

This was ordered because it is the standard table variety in the trials of the German station. It is one of the most widely cultivated food potatoes in Germany; an old variety. Professor Eckenbrecher reports it as most liable to scab and liable to rot.

Sorauer says that it is suited to sandy soils. Foreman Goese says it is not suitable for heavy soils. Doctor Appel finds it one of the most resistant to "Schwarzbeinigkeit."

12581.

Richter's Imperator. (L. R. Jones's No. 4.) Originated by Richter. Skin white, flesh white. (For description, see any report of the Deutsch. Kart.-Kult.-Stat., e. g., 1903, pp. 35 and 52.)

Chosen for two reasons: (1) It is one of the most uniformly resistant to scab of the varieties reported upon by Professor Eckenbrecher for a long series of years. (2) It is taken at this German station as the typical heavy yielding factory potato. It is also a fair table variety. Not especially resistant to disease except scab; suited to all except wetter soils.

12582.

Magnum Bonum. (L. R. Jones's No. 5.) Originated by Sutton. Skin white, flesh white; a medium late variety which is a standard table potato of north central Europe. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, pp. 43 and 53.)

Prunet, Frank, Sorauer, and others report this to be the most resistant to Phytophthora of any variety. Suited to all soils, according to Foreman Goese.

12583.

Irene. (L. R. Jones's No. 6.) Originated by Paulsen. Skin red, flesh white. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, pp. 39 and 43.)

A medium late variety which has been found in the trials of this station second only to *Mohort* in resistance to diseases (rots, etc.). It is also very resistant to scab. According to Foreman Goese, suited to good soils but not to light sands.

12584.

Professor Maerker. (L. R. Jones's No. 7.) Originated by Richter. Flesh white. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1897, p. 29; 1903, pp. 42 and 52.) This is a medium late variety, exceedingly productive, and a favorite sort in Germany for factory purposes, as well as a good table variety. It has shown good scab resistance, and was recommended by Foreman Goese and Professor Eckenbrecher for general disease resistance. Foreman Goese says that it is suited to all soils.

12585.

Silesia. (L. R. Jones's No. 8.) Originated by Cimbal. Flesh and skin white. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1899, p. 35; 1903, p. 42.)

12578 to 12668—Continued.

12578 to 12596—Continued.

A very late variety. Very heavy yielder and high percentage of starch, therefore one of the highest in total starch product. Only fairly resistant to disease, but included upon recommendation of Professor Eckenbrecher. Foreman Goese says that it is suited to all soils.

12586.

Max Eyth. (L. R. Jones's No. 9.) Originated by Cimbal. This is a late potato, of good quality and starch content, described in the Berichte Deutsch. Kart.-Kult.-Stat.

Ordered because Foreman Goese stated that he considered this the most resistant variety toward Phytophthora, and added that it is suited to all soils.

12587.

Mohort. (L. R. Jones's No. 10.) Originated by Dolkowski. White skin, white flesh. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, pp. 37 and 42.)

Selected because reported (1903, etc.) as the most highly resistant to diseases (rot, etc.) of any variety tested; also fairly resistant to scab. Excellent table variety; high yielder; high starch content. Foreman Goese says that it is suited to all soils.

12588.

Gastold. (L. R. Jones's No. 11.) Originated by Dolkowski. White skin, white flesh, middle late. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, pp. 35 and 42.)

Selected because next to *President Krüger* this appears to be the most productive variety they have. Fair degree of general disease resistance. Esteemed alike for table and factory. Foreman Goese says that it is suited to all soils.

12589.

President Krüger. (L. R. Jones's No. 12.) Originated by Cimbal. White skin, white flesh, late variety. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, pp. 35, 42, and 52.)

Selected because it has proved to be an enormous yielder, leading all varieties in most trials. It is of rather low starch content and recommended only for factory purposes. Foreman Goese says that it is suited to all good soils.

12590.

Professor Wohltmann. (L. R. Jones's No. 13.) Originated by Cimbal. Skin red, flesh white. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1900, p. 35; 1903, pp. 43 and 52.) Late variety.

Selected because reported as highly resistant to scab. Large yielder and high starch content. Esteemed both for factory and table purposes. Foreman Goese says it needs a good, rich soil.

12591.

Topas. (L. R. Jones's No. 14.) Originated by Dolkowski. Skin white, flesh white. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1900, p. 35; 1903, p. 42.) Medium early.

According to reports a good disease-resistant sort, good yielder, rich in starch, suitable for table and factory use.

Selected because Doctor Appel observed in 1902 that this showed the highest degree of resistance to Phytophthora of any variety in his fields. (See his article, "Die diesjährige Phytophthora-Epidemie," Deutsche Landw. Presse, XXIX, 685.) Foreman Goese says that it is suited to all soils.

12592.

Boncza. (L. R. Jones's No. 16.) Originated by Dolkowski. Skin red, flesh white, medium late. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1901, p. 36; 1903, p. 42.)

12578 to 12668—Continued.

12578 to 12596—Continued.

This is not a very large yielder, but is very rich in starch (excelled all others in 1901); a very good table variety.

According to 1901 reports it is most highly resistant to disease (rots, etc.) and also resistant to scab. Selected because of this. Mr. Goese says that it is suited to all soils.

12593.

Leo. (L. R. Jones's No. 17.) Originated by Pflug. Skin white, flesh white, medium late. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1902, p. 35; 1903, pp. 42 and 52.)

This is not especially disease resistant, but was included upon recommendation of Professor Eckenbrecher, since it is one of the heaviest yielding varieties of high starch content and therefore very high total starch product on the average.

Medium late. Especially a factory variety, but also a good table potato. Mr. Goese says that it is similar to Richter's *Imperator*, and suited to all except moist soils.

12594.

Fuerst Bismarck. (L. R. Jones's No. 18.) Originated by Cimbal. Skin red, flesh white, late. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1901, p. 37; 1903, p. 43.)

Exceedingly rich in starch and fair yielder. Recommended both for factory and table use. Professor Eckenbrecher has found this especially free from rot (Berichte, 1899), and it is included upon his recommendation for disease resistance. Mr. Goese says that it is suited for all good soils, but not for sand.

12595.

Apollo. (L. R. Jones's No. 19.) Originated by Paulsen. Skin white, white-yellowish. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1901; also 1903, pp. 36 and 53.)

Highly productive for starch content; recommended first for factory use, but also as a table variety. Here included upon the personal recommendation of Professor Eckenbrecher, who has found, during three years' trials, that it is highly resistant to disease (rots, etc.) and fairly resistant to scab. Mr. Goese says that it is suited to all soils.

12596.

Gelbfleischige Speisekartoffel. (L. R. Jones's No. 20.) Originated by Cimbal. Skin white, flesh yellowish, rather late ripening. (See further description in Berichte Deutsch. Kart.-Kult.-Stat., 1903, pp. 40 and 53.)

This is a medium yielder, not recommended at all for factory purposes but as an excellent yellow-fleshed table potato. Included for this reason. It is reputed as rather susceptible to diseases. Mr. Goese says that it is suited to all soils.

12597 to 12601.

From Groningen, Holland. Received thru Mr. U. J. Mansholt, rijksbauwleeraar, November 30, 1904.

12597.

Eigenheimer. (L. R. Jones's No. 31.) Recommended by Mr. Mansholt as an early yellow-fleshed variety, good for table use, and resistant to Phytophthora.

12598.

Landskroon. (L. R. Jones's No. 32.) Recommended by Mr. Mansholt as a middle early white-fleshed potato, good for table use, and resistant to Phytophthora.

12599.

Eureka. (L. R. Jones's No. 33.) Recommended by Mr. Mansholt as a middle early variety for factory rather than table use, and resistant to Phytophthora.

12578 to 12668—Continued.

12597 to 12601—Continued.

12600.

Malador. (L. R. Jones's No. 34.) Recommended by Mr. Mansholt as a late, yellow-fleshed, good table variety, and resistant to Phytophthora.

12601.

Daisy. (L. R. Jones's No. 35.) Recommended by Mr. Mansholt as a late factory variety and resistant to Phytophthora.

12602 to 12607.

From Paris, France. Received thru Vilmorin-Andrieux & Co., September 22, 1904.

12602.

Belle de Fontenay. (L. R. Jones's No. 36.) Recommended by Vilmorin-Andrieux & Co. as a very early variety of high vigor and productiveness. Tubers oblong, skin and flesh yellow. Esteemed one of the best early potatoes; the standard in the Paris market. Stands shipment well and esteemed for "French fried" potatoes; prefers a fairly moist soil in France; recommended especially for trial in the South.

12603.

Brandale. (L. R. Jones's No. 37.) Recommended by Vilmorin-Andrieux & Co. as a very early variety with oblong tubers, yellow skin and yellow flesh, and worthy of trial in Florida.

12604.

Early Rose. (L. R. Jones's No. 38.) This is very extensively grown as an early potato in France, and is the only white-fleshed early potato Vilmorin-Andrieux & Co. could recommend. They consider it of high vigor and productiveness.

12605.

Chave (Shaw). (L. R. Jones's No. 39.) This is a standard French variety, round tubers, yellow flesh, and yellow skin. Recommended by Vilmorin-Andrieux & Co. as of high vigor and productiveness and worthy of trial in our Southern States.

Doctor Delacroix considers this the most resistant of the French varieties to Phytophthora and similar in this respect to *Magnum Bonum* among the English varieties.

12606.

Belle de Juillet. (L. R. Jones's No. 40.) Second early. Oblong tubers, skin and flesh yellow. Recommended for trial, especially in the South, by Vilmorin-Andrieux & Co. as an especially vigorous and productive variety. "I found what I take to be the same variety to be the favorite potato grown at Florence (Experiment Farm), for the northern export and trade. It is also grown and highly esteemed in Germany." (*Jones.*)

12607.

Quarantaine de la Halle. (L. R. Jones's No. 42.) This was described as a medium-early variety of high vigor and productiveness, recommended for trial culture in Florida, etc. Oblong tubers, skin and flesh yellow.

12608 to 12613.

From Reading, England. Received thru Sutton & Sons, December 31, 1904.

12608.

May Queen. (L. R. Jones's No. 51.) Sutton's origination. Very early; kidney shape, shallow eyes, yellow skin, a very handsome potato,

12578 to 12668—Continued.

12608 to 12613—Continued.

and reputed as of high quality and fair yield for so early a variety. Recommended by Sutton and various others as worthy of trial in Florida. Mr. Scarlett advises to plant whole tubers and rather close together, as tops are small.

12609.

Ninetyfold. (L. R. Jones's No. 52.) Originated by Sutton. "First early;" white skin and flesh. Good kidney shape but not quite so uniform and handsome as *May Queen*, and eyes somewhat deeper. Rated a better cropper. A good authority states "one of heaviest croppers among the first earliest; therefore profitable to grow, although quality is not of best." Opinions differ as to disease resistance. Various persons recommend this for trial in Florida, etc.

12610.

Epicure. (L. R. Jones's No. 53.) Originated by Sutton. A "second early" variety; bronzy red skin; flesh white; recommended highly by Sutton, but this is not indorsed by all others consulted. Secured especially for trials in South.

12611.

Supreme. (L. R. Jones's No. 54.) Originated by Sutton & Sons. A "second early," but a little earlier than *Epicure*. White. This makes a small top and is not altogether promising. It was, however, recommended by the Suttons for trial, especially in the South. It seemed comparatively free from "Schwarzbeinigkeit," as seen at Cambridge, England.

12612.

Windsor Castle. (L. R. Jones's No. 55.) A "second early" variety; yellow skin, white flesh, roundish, recommended by the Suttons as highest quality for table. It was also indorsed by others as worthy of trial, especially in the South.

12613.

Discovery. (L. R. Jones's No. 56.) This is one of Sutton's latest originations. It is medium late, yellow skin, white flesh, kidney shape, excellent quality and strong yielder. Sutton's people rate it as their greatest production, and the opinion of unbiased potato experts so far as consulted is that this is the most promising disease-resistant potato in England to-day.

12614 to 12619.

From Edinburgh, Scotland. Received thru Mr. T. A. Scarlett, December 31, 1904.

12614.

Sir John Llewellyn. (L. R. Jones's No. 57.) This is recommended most highly of all early potatoes in England.

Recently introduced by Harris, Wales; season is "first early;" white skin, white flesh, flattish-oval kidney shape, fine appearance and strong cropper, quality not of best; likes a good soil, and is a strong feeder. Said to have a tendency to develop sports. This is noteworthy, since it may prove more promising for selection of disease-resistant plants.

12615.

King Edward VII. (L. R. Jones's No. 58.) This is one of recently originated varieties. Sent out by Butler. Late second early. Pink skin, flesh white, said to yellow somewhat when cooked. Said to be productive but not of highest quality. Ordered on recommendation of W. P. Wright, secretary of the National Potato Society. Most other opinions given were adverse to its value as a disease resister.

12578 to 12668—Continued.

12614 to 12619—Continued.

12616.

Cramond Blossom. (L. R. Jones's No. 59.) Of recent origin in the Scotch village of Cramond. Season, "late second early." Oval. Recommended for our trials as a disease-resistant variety by W. P. Wright, secretary of the National Potato Society, but this opinion was not concurred in by several others. Mr. Scarlett finds it liable to disease; so also do the Suttons and Middleton.

12617.

Charles Fidler. (L. R. Jones's No. 60.) Recent origin, sent out by Fidler. This is a late potato, white, said by Mr. Lasham to be practically the same as the German variety *Imperator*, if not identical with that sort. Recommended as worthy of trial for disease resistance both by Mr. W. P. Wright, secretary of the National Potato Society and by men at the Cambridge University farm.

12618.

Factor. (L. R. Jones's No. 61.) This is one of the newer varieties sent out by Dobbie. It is late; very well spoken of by all. Closely resembles the popular standard *Up-to-Date*, but said to be of slightly better quality. Recommended for our trial by W. P. Wright, secretary of the National Potato Society; also by men at the Cambridge University farm, etc.

12619.

Duke of York. (L. R. Jones's No. 62.) This is one of the highly esteemed earlier varieties, recommended especially by the Cambridge University farm authorities. Also well spoken of by Mr. Scarlett.

12620 to 12642.

In addition to Jones's Nos. 57 to 63, ordered from Mr. Scarlett, the latter was authorized to include various others of the most promising Scotch potatoes which he judged worthy of trial. In accordance therewith, he included the following 23 varieties:

12620. *Langworthy.*
12621. *Tyne Kidney.*
12622. *Table Talk.*
12623. *Dalmeny Kidney.*
12624. *Crofter.*
12625. *Scottish Queen.*
12626. *Premier.*
12627. *Northern Star.*
12628. *Pink Blossom.*
12629. *Peacemaker.*
12630. *Dalmey Red.*
12631. *Dalmey Early.*
12632. *Sharpe Express.*
12633. *Midlothian Early.*
12634. *Southern Queen.*
12635. *Wylun Early.*
12636. *White Blossom.*
12637. *Red Kidney.*
12638. *Moneymaker.*
12639. *Sir Thomas Lipton.*
12640. *Radium.*
12641. *Acme.*
12642. *Heather Blossom.*

12643 to 12668.

From Cambridge, England. Received thru Mr. H. Henshaw, of Cambridge University farm, December 14, 1904.

12643. *Sutton's Discovery.*
12644. *Sutton's Supreme.*
12645. *Sutton's Ideal.*
12646. *Sutton's Flour Ball.*
12647. *Sutton's Ninetyfold.*
12648. *Findlay's Evergood.*
12649. *Findlay's Goodfellow.*

12578 to 12668—Continued.

12643 to 12668—Continued.

12650. *Findlay's Up-to-Date.*

12651. *Findlay's Northern Star.*

12652. *Findlay's British Queen.*

12653. *Fidler's Seedling.*

12654. *Charles Fidler.*

12655. *Carter's Snowball.*

12656. *Carter's Monarch.*

12657. *Kerr's Dumfries Model.*

12658. *Kerr's Duchess of Cornwall.*

12659. *Dobbie's Factor.*

12660. *Dobbie's Improved Kidney.*

12661. *Butler's King Edward VII.*

12662. *Sir John Llewellyn.*

12663. *Cramond Blossom.*

12664. *Langworthy.*

12665. *Duke of Rothesay.*

12666. *Royal Kidney.*

12667. *Duke of York.*

12668. *Empress Queen.*

12669. CUCUMIS MELO. **Muskmelon.**

From Boston, Mass. Received thru R. & J. Farquhar & Co., January 6, 1905.

Montreal Nutmeg.

12670. ULEX EUROPAEUS. **Gorse, whin, or furze.**

From Dublin, Ireland. Received thru Hogg & Robertson, January 6, 1905.

"Fresh roots covered with root tubercles, imported in cooperation with the Laboratory of Plant Physiology for the purpose of getting cultures of the micro-organism of these tubercles to be used in experiments in the introduction of the plants, the seed of which was introduced under No. 12408." (*Fairchild.*)

12671. MEDICAGO SATIVA. **Alfalfa.**

From Lawrence, Kans. Received thru F. Barteldes & Co., January 6, 1905.

12672 to 12677. OLEA EUROPAEA. **Olive.**

From Tunis, North Africa. Secured by Mr. Thomas H. Kearney. Received January 6, 1905. A collection of olive cuttings from the premises of M. Robert, Kalaâ Srira, Susa.

12672. *Souaba el Aljia.* An oil olive. Rather a small yielder, according to Minangoin.

12673. *Chaibi.* An uncommon but heavy yielding variety of oil olive that succeeds best in northern Tunis.

12674. *Semni* (butter). An olive which remains yellow green even when ripe; gives oil of very light color but of finest quality.

12675. *Khadraya* (green). An oil olive.

12676. *Kalb es Serdouk* (cock's heart). A small oil olive like Chemlali, yielding very heavily, adapted to dry lands.

12677. *Nebkri.* Gives oil of finest quality.

12678. PANICUM MAXIMUM. **Guinea grass.**

From Havana, Cuba. Received thru José Sagarminaga, seedsman, Obispo 66, January 7, 1905.

12679. ORYZA SATIVA. **Rice.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company, January 5, 1905.

Sekai-ichi, meaning the "World's No. 1," grown in Iyo, Shikoku Province, which received the first prize in the last Osaka exposition and is recommended as the best and nearest quality to the *Carolina Golden* by Mr. Kenzo Ikeda, the president of the Agricultural Society of Japan. (*Fairchild.*)

12680. LILIUM PARDALINUM. **Lily.**

From Ukiah, Cal. Received thru Mr. Carl Purdy, January 5, 1904.

This lily is native to the Coast Range of mountains in California and Oregon. It is found at elevations varying from 1,000 to 5,000 feet. In its native state it is seen at its best growing along the edges of marshy valleys and in moist soil bordering springs and mountain streams. Under favorable conditions *Lilium pardalinum* increases from year to year, producing several new bulbs annually. Well-grown plants are quite as floriferous as the well-known St. Joseph's lily (*L. candidum*).

The flowers are arranged on long pedicels in an open raceme; the prevailing color is red or crimson, with the lower parts of the segments orange colored, and spotted with purple; the segments are much reflexed. There are, however, several varieties found in a wild state, varying from each other principally in the color of the flowers.

12681. CASTANEA VESCA. **Chestnut.**

From San Giovanni a Teduccio, near Naples, Italy. Received thru Damman & Co., January 7, 1905.

12682. GLADIOLUS hyb. **Gladiolus.**

From Chicago, Ill. Received thru Vaughan's Seed Store, January 7, 1905.

Princeps.

12683. NICOTIANA TABACUM. **Tobacco.**

From Wethersfield, Conn. Received thru Comstock, Ferre & Co., December 5, 1904.

Connecticut Seed Leaf.

12684 to 12692.

From Zaouia du Mornag, about 20 kilometers from Tunis, Tunis. Collected by Mr. T. H. Kearney, December 24, 1904, in the garden of M. Giraud, president of the Horticultural Society. Received January 9, 1905.

12684. OLEA EUROPAEA. **Olive.**

Bidh el Hammam. "The second largest olive of Tunis, and, according to Marzac, the best." (*Kearney.*)

12685. OLEA EUROPAEA. **Olive.**

Saiali Magloub. "One of the best of the medium-sized olives. According to Minangoin it is not a heavy yielder, but I did not get the impression that it is inferior in this respect to the large table olives. Probably Minangoin criticized it in this respect as an oil olive, but it is said to be excellent for the table." (*Kearney.*)

12686. CITRUS LIMONUM. **Lemon.**

Quatre Saisons. According to M. Giraud the best and the most widely grown lemon in Tunis; largely exported.

12687. CITRUS AURANTIUM. **Orange.**

Maltaise (No. 1). A smooth-skinned, deep-colored orange.

12688. CITRUS AURANTIUM. **Orange.**

Maltaise (No. 2). A smooth-skinned, large-leaved orange.

12684 to 12692—Continued.

12689. CITRUS AURANTIUM. **Orange.**

Maltaise (No. 3). Seedling.

12690. CITRUS AURANTIUM. **Orange.**

Blood, native variety.

12691. CITRUS BIGARADIA. **Bergamot orange.**

A smooth-skinned bigarade (bergamot?), said to be the best variety for making preserves.

12692. CITRUS AURANTIUM. **Orange.**

Trabelsi (Tripoli). The most abundant orange of Tunis.

12693. GARCINIA MORELLA. **Gamboge.**

From Kingston, Jamaica. Received thru Prof. William Fawcett, January 11, 1905.

"Seeds of the tree producing the true gamboge of commerce, which is procured principally from Siam and is used as a pigment for dyeing silks and other fabrics. The rind of the fruit is also used for tanning purposes. Introduced for the purpose of testing as a stock upon which to graft the mangosteen (*G. mangostana*). The gamboge has a hardier root system and is a very vigorous growing tree, and for this reason may prove of value as a stock." (*Fairchild.*)

12694 to 12696. MEDICAGO SATIVA. **Alfalfa.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., January 7, 1905.

12694. Grown in Provence.

12695. Grown in Poitou.

12696. Grown in Italy.

12697. ZEA MAYS. **Sweet corn.**

From Philadelphia, Pa. Received thru Henry F. Michell Company, January 11, 1905.

Sugar Loaf.

12698. PISUM SATIVUM. **Pea.**

From New York, N. Y. Received thru J. M. Thorburn & Co., January 12, 1905.

Thomas Laxton.

12699 to 12701.

From New York, N. Y. Received thru J. M. Thorburn & Co., January 13, 1905.

Drug and medicinal seeds ordered for the cooperative work conducted by the Office of Drug Plant Investigations.

12699. DIGITALIS PURPUREA.

12700. FOENICULUM DULCE.

12701. PIMPINELLA ANISUM.

12702. MEDICAGO SATIVA. **Alfalfa.**

From Sherman, Tex. Received thru Mrs. R. E. Smith, January 13, 1905.

12703. ALLIUM FISTULOSUM. **Welsh onion.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January 14, 1905.

Forcing. Grown from S. P. I. No. 9301.

12704 to 12707.

A collection of vegetable seeds for special tests.

12708. MUSA TEXTILIS. **Manila hemp.**

From Manila, P. I. Grown from seed received by Mr. G. W. Oliver, from Prof. W. S. Lyon, Insular Bureau of Agriculture, January 29, 1904.

12709. HORDEUM TETRASTICHUM. **Four-row barley.**

From Bozeman, Mont. Received thru Prof. F. B. Linfield, Agricultural Experiment Station, January 12, 1905.

Hull-less.

12710. CYPERUS PAPYRUS. **Papyrus.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., January 14, 1905.

12711 to 12715. ORYZA SATIVA. **Rice.**

From Yokohama, Japan. Presented by the Yokohama Nursery Company. Received January 12, 1905.

12711. *Banshiu honba.* Produce of Hiogo Ken.

12712. *Kairio.* From Shin-no-yen, Kasia Gun, Harima, 30 miles west of Kobe.

This "Kairio" seed quality is reported to be very strong against any diseases and endures injurious attacks. Produce of Hiogo Ken.

12713. *Futafushi wase.* Produce of Kanagawa Ken.

12714. *Makuno uchi.* Produce of Kanagawa Ken.

12715. *Kokeju.* Produce of Kanagawa Ken.

All of the above-named rices require only the ordinary rice cultivation practiced in Japan. They must have plenty of water from time of sowing till the ears are well formed.

12716. PSIDIUM MOLLE (?). **Guayabillo.**

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, January 14, 1905.

Packet of mixed seeds of strawberry and fig-flavored sorts collected at "La Trinidad," Guerrero, Mexico.

12717 to 12732.

A collection of vegetable seeds secured from various seedsmen for special testing purposes.

12733. BEGONIA sp. **Begonia.**

From Mount Vernon, N. Y. Received thru Mr. H. E. Le Page (representing Hubert & Co., Guernsey and Jersey, England), January 17, 1905.

Tuberous rooted.

12734. RHAMNUS PURSHIANA. **Cascara sagrada.**

From Olympia, Wash. Received thru Mr. A. W. McMurray, January 16, 1905.

Seedlings for cooperative work being conducted by the Office of Drug Plant Investigations.

12735. ATRIPLEX SEMIBACCATA (?). **Saltbush.**

From Tulare, Cal. Received thru Prof. A. V. Stubenrauch, January 17, 1905.

12736. PHASEOLUS VULGARIS. **Bean.**

From New York, N. Y. Received thru Peter Henderson & Co., January 16, 1905.

Bush Bountiful (green-podded).

12737. SECHIUM EDULE. **Chayote.**

From Dallas, Tex. Received thru Texas Seed and Floral Company, January 18, 1905.

12738. DAHLIA MERCKII. **Dahlia.**

From Edinburgh, Scotland. Received thru Prof. Bayley Balfour, regius keeper, Royal Botanic Garden, January 18, 1905.

This species is hardy at Edinburgh.

12739 to 12742. SACCHARUM OFFICINARUM. **Sugar cane.**

From Kingston, Jamaica. Received thru Mr. William Fawcett, director of Hope Gardens, January 16, 1905.

12739. *Bourbon.*
12740. *B. 306.*
12741. *D. 99.*
12742. *D. 115.*

12743. PHASEOLUS VULGARIS. **Bean.**

From Columbus, Ohio. Received thru the Livingston Seed Company, January 18, 1905.

Kenney's Rustless Golden Wax.

12744. BETA VULGARIS. **Sugar beet.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January 19, 1905.

"Grown on C. C. Morse & Co.'s farm at Gilroy, Cal., for the general trade. Not the product of chemically analyzed roots, but rather from roots selected according to shape, size, etc., judged by their external appearance." (*J. E. W. Tracy.*)

12745. BETA VULGARIS. **Sugar beet.**

From Fairfield, Wash. Received thru Mr. E. H. Morrison, January, 1905. Crop of 1904.

"Grown on E. H. Morrison's farm at Fairfield, Wash., for the general trade, from roots selected according to shape, size, etc., judged for their external appearance only." (*J. E. W. Tracy.*)

12746. PISTACIA VERA. **Pistache.**

From Tashkend, Russian Central Asia. Received thru Mr. H. W. Dürrschmidt, January 20, 1905.

12747. MEDICAGO SATIVA. **Alfalfa.**

From Billings, Mont. Received thru Mr. I. D. O'Donnell, January 19, 1905.

12748. MEDICAGO SATIVA. **Alfalfa.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., January 20, 1905.

Seed grown in the state of Hesse, Germany, and is known as *Eifeler Luzerne* in the Rhine Province.

12749 and 12750. CUCURBITA sp. **Squash.**

From Garrett Park, Md. Received thru Mr. D. S. Bliss, January 21, 1905. Grown from S. P. I. No. 9481 during the season of 1904.

12749. Large cylindrical sort.
12750. Crook-neck.

"The seeds of the large sort are from the first fruit that formed before any blossoms showed on any other vines, and, so far as I know, there were no other vines nearer than half a mile. The seeds of the smaller fruits are from a dozen mixed." (*Bliss.*)

12751. (Undetermined.)

From Barberton, Africa. Received thru Hon. W. Stanley Hollis, United States consul at Lourenço Marquez, Africa, January 14, 1905.

"A very fine, edible 'plum,' which grows in the mountains near Barberton on trees about 6 feet high." (*Hollis.*)

12752. DOLICHOS UNIFLORUS. **"Kulthi."**

From Quard Hitlow Koppa, Mysore Province, India. Received thru Mr. W. Maxwell Maynard, January 20, 1905.

"According to Mr. Maynard this legume is grown extensively in India and fed to horses and working bullocks and is also considered valuable for using in the coffee estates. Sent by Mr. Maynard to Dr. George T. Moore for the purpose of interesting him in the cultivation of the micro-organism which forms the nodules on this as well as other leguminous plants." (*Fairchild.*)

12753 and 12754. OLEA EUROPAEA. **Olive.**

From Sousse, Tunis. Collected by Mr. T. H. Kearney. Received January 21, 1905.

12753. *Barouni.*
12754. *Yacouti.*

12755. CORNUS KOUSA.

From New York, N. Y. Received thru Henry & Lee, 97 Water street, January 23, 1905.

12756. BRASSICA NIGRA. **Black mustard.**

From Philadelphia, Pa. Received thru W. A. Burpee & Co., January 24, 1905.

Fordhook Fancy.

12757. BAMBUSA STRIATA. **Bamboo.**

From Niles, Cal. Received thru the California Nursery Company, January 25, 1905.

12758. CYPHOMANDRA BETACEA. **Tree tomato.**

From Kingston, Jamaica. Received thru Mr. G. N. Collins, January, 1905.

"This is a species of South American shrub from the mountainous regions of Brazil, adjacent to Peru. Cultivated occasionally for the egg-shaped, reddish-brown, faintly striped fruits. Fruits about 2 inches long on slender stalks, 2 celled, seedy, musky acid and tomato-like in flavor; agreeable to those who like tomatoes." (*Bailey.*)

Bears the second or third year from seed under glass. This tomato has been successfully introduced into Jamaica, Ceylon, and other mountainous regions of the Tropics, and in many places is considered a valuable addition to the list of garden vegetables. It would, in all probability, thrive in Porto Rico. (*Cook and Collins, Contr. Nat. Herb.*, VIII, p. 132.)

"Succeeds best with a mean annual temperature of 68° F. Can be propagated readily from seed in warm countries." (*Bailey's Forcing Book.*)

12759 and 12760. ORYZA SATIVA. **Rice.**

From Buitenzorg, Java. Received thru Doctor Treub, of the Botanical Gardens, December 5, 1904.

12579. *Tjiomas.*
12760. *Carolina.*

12761 to 12765. ORYZA SATIVA. **Rice.**

From Yokohama, Japan. Presented by the Yokohama Nursery Company. Received December 12, 1904.

Unhulled rice as follows:

12761. *Bankoku ichi.*
12762. *Jugoya.*
12763. *Makuno uchi.*
12764. *Sekitori.*
12765. *Ko-zo.*

12766 to 12768.

From Wonsan, Korea. Received thru Mr. C. F. S. Bilbrough, Chosen Holme, January 21, 1905.

12766. ORYZA SATIVA. **Rice.**

With a light husk.

12767. ORYZA SATIVA. **Rice.**

With dark-brown husk.

12768. CLERODENDRON sp.

12769. DELPHINIUM sp. **Larkspur.**

From Holland, Mich. Received thru Mrs. H. Kremers, January 25, 1905.

12770. CUCUMIS MELO. **Muskmelon.**

From Augusta, Ga. Received thru Alexander Seed Company, January 21, 1905.

Nixon.

12771. CITRULLUS VULGARIS. **Watermelon.**

From Philadelphia, Pa. Received thru Mr. William Henry Maule, January 21, 1905.

Harris's Earliest.

12772. MEDICAGO SATIVA. **Alfalfa.**

From Dell, Oreg. Received thru Mr. M. D. Kelley, January 26, 1905.

Grown from S. P. I. No. 9450.

12773. CASTANEA CRENATA. **Japanese chestnut.**

From New York City. Presented by Mr. F. W. Bruggerhof, president of the J. M. Thorburn Company, 36 Cortlandt street. Received January 25, 1904.

12774. LINUM USITATISSIMUM. **Flax.**

From Pskoff, Russia. Received thru Malcolm & Co., January 21, 1905.

12775. PHASEOLUS RADIATUS. **Mung bean.**

From Calhoun, S. C. Received thru Mr. C. C. Newman, January 27, 1905.

Newman.

12776. DODECATHEON MEADIA. **Shooting-star.**

From Takoma Park, D. C. Received thru Mr. A. J. Pieters in the autumn of 1904.

12777 to 12779.

From Murtee Station, Wilcannia, New South Wales, Australia. Presented by Mr. E. W. Davis. Received January 28, 1905.

Seeds of native plants.

12777. ATRIPLEX NUMMULARIA. **Old-man saltbush.**

12778. ATRIPLEX HOLOCARPA. **Annual saltbush.**

12779. TETRAGONIA EXPANSA. **New Zealand spinach.**

12780 and 12781.

From Cape Town, South Africa. Presented by Prof. J. Burtt Davy, government agrostologist and botanist. Received January, 1905.

12780 and 12781—Continued.

12780. Ficus sp.

"From southern Rhodesia. Well worth cultivating; very large tree; suitable for southern California, Florida, and Louisiana." (*Davy.*)

12781. Acacia sp.

"From southern Rhodesia. Well worth cultivation in southern California and southern Florida." (*Davy.*)

12782 and 12783. PISTACIA VERA. **Pistache.**

From Bronte, Sicily. Collected by Mr. Thomas H. Kearney. Received January 30, 1905.

12782. Staminate cuttings.

12783. Carpellate cuttings.

12784. MEDICAGO SATIVA. **Alfalfa.**

From Ogden, Utah. Received thru the C. A. Smurthwaite Produce Company, January 30 and March 9, 1905.

This seed was raised in Emery County, Utah, on land that is irrigated. The land has been cropt for forage for fifteen years, and in 1904 it was cropt for seed for the first time. This seed was taken from second growth.

12785. PAPAVER RHOEAS. **Shirley poppy.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January 30, 1905.

Santa Rosa, a new variety originated by C. C. Morse & Co.

12786 to 12789. SACCHARUM OFFICINARUM. **Sugar cane.**

From Trinidad, British West Indies. Received thru Mr. J. H. Hart, superintendent of the Botanical Gardens, January 29, 1905.

12786. *T. 105.*

12787. *T. 215.*

12788. *T. 223.*

12789. *T. 230.*

12790 to 12800.

From New South Wales, Australia. Received thru Mr. H. W. Potts, principal of the Hawkesbury Agricultural College, February 1, 1905.

A collection of seeds as follows:

12790. Acacia baileyana. **Cootamundra wattle.**

12791. Acacia elongata. **"Sally" wattle.**

Tall shrub or small tree.

12792. Acacia linearis. **Wattle.**

12793. Acacia lunata. **"Golden Glory" wattle.**

A handsome shrub with dense masses of golden-yellow flowers rising 4 to 5 feet.

12794. Acacia trinervata. **Mountain wattle.**

12795. Bossiaea rhombifolia.

A native, rigid, small shrub, the pods characteristically attacked by an Aecidium.

12796. Casuarina suberosa.

A tree pinelike in appearance, with leafless, jointed branches.

12797. Dodonaea viscosa.

A shrub rising to from 4 to 6 feet.

12790 to 12800—Continued

12798. Elaeocarpus cyaneus.

A small tree.

12799. Eragrostis pilosa. **Weeping love grass.**

12800. Kennedya rubicunda

A scarlet-flowered creeper.

12801. Medicago sativa. **Alfalfa.**

From Mulock, Tex. Received thru Mr. J. M. Simmons, February 1, 1905.

12802. Alnus maritima japonica. **Alder.**

From New York, N. Y. Received thru Suzuki & Iida, February 2, 1905.

"A deciduous tree growing in wet places, attaining a height of 20 to 30 feet. In spring it produces male and female flowers separately before it sprouts. The male flowers hang down from the branches in the form of a catkin, and the female flowers yield round fruits with scales. In the autumn when the fruits fully ripen, being about 1 inch in length, they are collected and dried for dyeing." (*Useful Plants of Japan.*)

"This plant is considered essential in the cultivation of the Japanese paper plant, mitsumata. It is used as a 'shelter' plant and is invariably planted on the plantation of the paper plant. It is doubtful if the effect accredited to this plant, viz, shade and shelter, is the real reason for its culture.

"It has been suggested by Mr. W. T. Swingle that since the genus Alnus has a root system bearing root nodules which store up nitrogen that this plant enriches the soil in which the paper plants are grown. This plant should be carefully studied relative to this particular point." (*Fairchild.*)

12803. Medicago sativa. **Alfalfa.**

From Setif, Algeria. Received thru Mr. G. Ryf, Setif, February 2, 1905.

Getula. "This variety of alfalfa is said by Mr. Ryf, who has devised a most ingenious method of cultivating alfalfa and wheat on the same land at the same time, to be more drought resistant than the ordinary French lucern, and it is believed that this variety may prove of special value in experiments in the arid regions of our Southwest." (*Fairchild.*)

12804. Juncus effusus (?). **Matting rush.**

From Chico, Cal. Received thru Mr. P. H. Dorsett, Plant Introduction Garden, February 13 and 20, 1905.

"Plants of the California rush for experiments in the culture of the matting rush." (*Fairchild.*)

12805. Humulus lupulus. **Hop.**

From Nuremberg, Germany. Received thru S. B. Bing Sons, hop merchants, September 30, 1904.

Saaz City.

12806. Humulus lupulus. **Hop.**

From Puyallup, Wash. Received thru Mr. W. H. Lawrence, assistant at the Agricultural Experiment Station, November 14, 1904.

12807. Humulus lupulus. **Hop.**

From Germany. Received November, 1904.

12808. ORYZA SATIVA. **Rice.**

From Colombo, Ceylon. Presented by Dr. C. Drieberg, superintendent of School Gardens. Received January 28, 1905.

Grown in the Hambantote district.

12809. ANACARDIUM OCCIDENTALE. **Cashew nut.**

From Salisbury, Rhodesia, South Africa. Received thru Mr. George M. Odlum, Department of Agriculture, February 3, 1905.

From wild trees in Portuguese East Africa that seem to bear more freely than those cultivated in the West Indies and may prove hardier.

12810 and 12811.

From Portuguese East Africa. Presented by Hon. Stanley Hollis, United States consul, Lourenço Marquez, thru the Assistant Secretary of State. Received January 28, 1905.

12810. (Undetermined.) **Matundulaku.**

Fruits of a sour "plum" sent to Mr. Hollis by Mr. A. E. Graham-Lawrence, of Barberton.

12811. GARCINIA LIVINGSTONEI. **Pimbe.**

A Lourenço Marquez wild "plum."

12812. (Undetermined.)

From Hankow, China. Presented by Dr. L. S. Wilcox, United States consul-general. Received January 31, 1905.

12813. BRASSICA OLERACEA. **Cabbage.**

From Norton, N. C. Received thru Mr. B. Norton, February 2, 1905.

North Carolina Buncombe.

12814. ARACHIS HYPOGAEA. **Peanut.**

From Marseille, France. Received thru Hon. Robert P. Skinner, United States consul-general, February 3, 1905.

"A sample of 'Arachides' from the province of Sine in Senegal. These are the very best nuts known in this market for the manufacture of oil." (*Skinner.*)

12815. PISTACIA VERA. **Pistache.**

From near Caltanisetta, Sicily. Received thru Mr. T. H. Kearney, February 4, 1905.

Trabonella.

12816. MEDICAGO SATIVA. **Alfalfa.**

From Chinook, Mont. Received thru the Thomas O'Hanlon Company, February 6, 1905.

Grown by Mr. F. T. Reser, 1 mile west of Chinook.

12817. PHASEOLUS VULGARIS. **Bean.**

From Leroy, N. Y. Received thru Mr. A. N. Jones, February 25, 1905.

Golden Crown Wax.

12818. PHASEOLUS VULGARIS. **Bean.**

From Chaumont, N. Y. Received thru Roger Brothers, February 25, 1905.

Golden Carmine-Podded Horticultural.

12819. Lippia repens.

From Santa Barbara, Cal. Received thru Dr. F. Franceschi, February 10, 1905.

12820. Medicago sativa. **Alfalfa.**

From Clearwater, Nebr. Received thru Mr. G. E. Miller, February 7, 1905.

12821. Psidium molle. **"Guayabillo."**

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, February 4, 1905.

12822 to 12831. Amygdalus communis. **Almond.**

From Girgenti, Sicily. Received thru Mr. T. H. Kearney, February 6, 1905.

Varieties of almond cuttings selected by Mr. Casá from his collection of 25 varieties.

12822. Sweet; big fruit.
12823. Sweet; long fruit.
12824. Sweet; fruit dark red.
12825. Sweet; fruit double.
12826. Bitter.
12827. Sweet, with "a point at one side" (end).
12828. Tender, sweet; good for table.
12829. Early flowering, sweet, hard-shelled.
12830. Not frost resistant.
12831. Late flowering; resistant to frost.

12832 to 12842.

From Catania, Sicily. Received thru Mr. T. H. Kearney, February 8, 1905.

12832 to 12835.

Received from Salvatore Leanza, nurseryman, Catania, Sicily.

12832. Eriobotrya japonica. **Loquat.**

"A valuable and distinct, semiseedless grafted variety, which may be especially recommended. Fruit especially large, pear-shaped, with a fleshy, juicy, sugary pulp; with a few small seeds, which are in some cases extremely small according to the modification produced by their surroundings, whether in pots or in open ground with a ball of earth." (*Kearney.*)

12833 and 12834. Corylus avellana. **Filbert.**

Castiglione.

12835. Pistacia vera. **Pistache.**

Bronte.

12836 to 12842. Opuntia spp. **Prickly pear.**

Presented by Doctor Cavara, of the Catania Botanical Gardens, Sicily.

12836. Opuntia tomentosa.

A variety of opuntia that holds its fruit all winter. (Doctor Cavara's No. 5.)

12837. Opuntia ficus indica.

"Fructu albo, vulgo 'Zuccherina.'" (Doctor Cavara's No. 2.)

12838. Opuntia ficus indica.

"Fructu albo, vulgo 'Sipala.'" (Doctor Cavara's No. 1.)

12839. Opuntia ficus indica.

"Fructu flavo, vulgo 'Figu d'India.'" (Doctor Cavara's No. 4.)

12840. Opuntia ficus indica.

"Fructu rubro, vulgo 'Sanguigua.'" (Doctor Cavara's No. 3.)

12832 to 12842—Continued.

12836 to 12842—Continued.

12841. OPUNTIA FICUS INDICA.

"Fructu flavo-carne, compacta, vulgo 'Brontese.'" (Doctor Cavara's No. 7.)

12842. OPUNTIA FICUS INDICA.

"Fructu albo-venosa." (Doctor Cavara's No. 6.)

12843 to 12845. CUCURBITA sp. **Squash.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company, February 7, 1905.

12843. *Kikugata* (early).

12844. *Chilimen* (early).

12845. *Kikuza* (late).

12846 to 12848.

From Tunis. Received thru Mr. T. H. Kearney, December 28, 1904.

12846. MEDICAGO SATIVA. **Alfalfa.**

Oasis. From Kebili.

12847. MEDICAGO SATIVA. **Alfalfa.**

Tripoli. From Gabes.

12848. PISTACIA VERA. **Pistache.**

From Sfax. Nuts from the 1904 crop.

12849. CANNABIS SATIVA. **Hemp.**

From Nicholasville, Ky. Received thru W. L. Steel & Co., February, 1904.

12850. FEIJOA SELLOWIANA.

From Sao Paulo, Brazil. Presented by Mr. Alberto Löfgren, Botanic Gardens. Received March 11, 1905.

"A plant belonging to the guava family. Plants of this new fruit have been grown by Mr. Taft and Doctor Franceschi in southern California, and small immature fruits have been borne by single plants grown by these parties. The plant has been successfully cultivated on the Riviera, where there are several specimens of considerable size which have borne excellent fruit. Doctor André, who has paid special attention to this fruit, pronounces it, in flavor, something exceptionally delicious. The fruits are about the size of a large English walnut, green in color and covered with blunt protuberances. Little is known at the present time in this country regarding the actual flavor of the fruit. The fruit is of a character which enables it to be plucked from the bush before ripening. It is believed that this plant can be grown successfully in all the frostless regions of the Southwest. It is well worthy of serious consideration by all those interested especially in subtropical fruit culture." (*Fairchild.*)

12851. PENNISETUM TYPHOIDEUM. **Pearl or cat-tail millet.**

From Augusta, Ga. Received thru the N. L. Willet Drug Company, March 13, 1905.

12852. ORYZA SATIVA. **Rice.**

From Augusta, Ga. Received thru the N. L. Willet Drug Company, March 13, 1905.

12853. TRITICUM DICOCCUM. **Emmer.**

From Lawrence, Kans. Received thru F. Barteldes & Co., February 22, 1905.

12854. HORDEUM VULGARE. **Barley.**

From Geneva, Idaho. Received thru Mr. F. W. Boehme, March 15, 1905.

12855. SECALE CEREALE. **Rye.**

From Geneva, Idaho. Received thru Mr. F. W. Boehme, March 15, 1905.

12856 to 12861.

From Vomero, Naples. Presented by Dr. Carl Sprenger thru Mr. E. A. Bessey. Received January, 1905.

12856. RICINUS ZANZIBARIENSIS. **Castor-oil plant.**

Package of mixed varieties.

12857. SESBANIA TRIPETII. **Red acacia.**

"One of the finest flowering shrubs."

12858. RHAMNUS ALATERNUS CALABRICA.

12859. MORUS ALBA. **White mulberry.**

China.

12860. SIDERITIS MASSONIANA. **12861.** PICRASMA AILANTHOIDES.

12862 to 12864.

From Paris, France. Received thru Vilmorin-Andrieux & Co., February 10, 1905.

12862. CYNARA SCOLYMUS. **Artichoke.**

Large flat *Brittany.*

12863. CUCUMIS SATIVUS. **Cucumber.**

12864. SANVITALIA PROCUMBENS FLORE PLENO.

12865 to 12871. ORYZA SATIVA. **Rice.**

From Calcutta, India. Presented by I. H. Burkill, esq., M. A., officiating reporter on economic products to the government of India, Indian Museum, 1 Sudder street. Received February 9, 1905.

12865. *Masiua ghaiya.* From Bengal Province.

12866. *Bhadai ghaiya*, red. From Bengal Province.

12867. *Thosar Bhadai ghaiya*, white. From Bengal Province.

12868. *Pakhasali Bhadai.* From Bengal Province.

12869. *Augua Bhadai.* From Bengal Province.

12870. Small red variety. From Bengal Province.

12871. *Takmaroo ghaiya.* From Bengal Province.

This paddy was grown by the Lepchas and Bhootias.

12872. CHRYSANTHEMUM ANETHIFOLIUM. **Chrysanthemum.**

From Merrifield, N. Dak. Presented by Mrs. H. E. Bancroft. Received February, 1905.

Mrs. Bancroft writes that this is a perennial there, but blossoms early the first year from seed. The largest blossoms are the early ones, being three times as large as those sent, which were gathered on November 13, 1904.

12873. ESCHSCHOLTZIA CALIFORNICA. **California poppy.**

From Merrifield, N. Dak. Presented by Mrs. H. E. Bancroft. Received February, 1905.

Mrs. Bancroft writes that by constant selection she has developed a strain of California poppy with flowers much larger than the ordinary, which continue in bloom much later than the common kind.

12874 to 12876. ORYZA SATIVA. **Rice.**

From Canton, China. Presented by Mr. T. E. Griffith. Received January 28, 1905.

Samples of Chinese rice, as follows:

12874. "*Shie-Miu.*" (No. 1.)
12875. "*Ai-Miu.*" (No. 2.)
12876. "*Laer-Chap.*" (No. 3.)

"As to the local manner of planting this rice, a seed bed some 30 yards square is prepared alongside of the large rice fields about the month of August. This seed bed is composed of softish mud, and the grain is scattered over the surface, which is kept wet enough to cause it to sprout. In about three weeks' time the mass of seedlings are about 10 inches in height, when they are taken up and planted out in the rice fields in bunches of 20 or so seedlings together, at intervals of a foot between bunches.

"The soil of the fields is a bluish alluvial mud, and, after planting, it is kept constantly inundated with water from the numerous creeks which intersect the country. In about one hundred days from planting out the grain is ripe, and is then gathered in." (*Griffith.*)

12877 to 12895.

From New Zealand. Presented by the government of New Zealand thru Mr. M. A. Carleton. Received February 11, 1905.

A collection of grains, etc., from the New Zealand exhibit at the Lousiana Purchase Exposition, St. Louis, Mo., 1904.

12877 to 12882. AVENA SATIVA. **Oat.**

12877. *Danish.*
12878. *Dun.*
12879. *Sparrowbill.*
12880. *Canadian.*
12881. *White Tartar.*
12882. *Black Tartar.*

12883 to 12886. TRITICUM VULGARE. **Wheat.**

12883. *Pearl.*
12884. (No label.)
12885. *Hunter's.*
12886. *Tuscan.*

12887 to 12889. PISUM SATIVUM. **Pea.**

12887. *Brown.* (Marked "B.")
12888. *Green.* (Marked "C.")
12889. *Green.*

12890. TRIFOLIUM REPENS. **White clover.**

12891. TRIFOLIUM PRATENSE. **Red clover.**
Colonial.

12892. LOLIUM ITALICUM. **Italian rye-grass.**

12893. LOLIUM PERENNE. **Perennial rye-grass.**

12894. PHLEUM PRATENSE. **Timothy.**
Colonial.

12895. DACTYLIS GLOMERATA. **Orchard grass.**

12896. LILIUM NEILGHERRENSE. **Neilgherry lily.**

From Utakamund, India. Received thru Mr. G. H. Cave, superintendent of the Government Botanic Gardens, February 14, 1904.

12897 to 12899.

From Durban, Natal. Presented by Mr. J. Medley Wood, director of the Botanic Gardens. Received February 14, 1905.

12897. COFFEA ZANGUEBARIAE (?). **Coffee.**

"According to a letter of January 12, 1905, from Mr. Wood, this species of Coffea, regarding the identification of which he is doubtful, is quite immune

12897 to 12899—Continued.

to attacks of the *Hemileia vastatrix.* It is grown in the Botanic Gardens within a few feet of Coffea plants covered with this fungus, and Mr. Wood has endeavored to inoculate the plant with it but has been unsuccessful. He further states that it is a handsome shrub, in addition to its value for hybridizing purposes for *Coffea arabica* or other species. His idea is, further, that it might be used as a stock upon which to graft the Arabian Coffea." (*Fairchild.*)

12898. Asparagus virgatus.

"According to Mr. Wood this species is cultivated in Natal and is considered to have a distinct flavor of its own and to be a desirable vegetable. This same species has been in cultivation in America for some time as an ornamental." (*Fairchild.*)

12899. Passiflora edulis.

"In Natal one of the commonest fruits on the market is this passion fruit. Its cultivation requires very little attention and it seems to be a very productive vine. This could be cultivated to advantage in the frostless regions of California and Florida, and attempts should be made to cross it with the Maypop, which is a common species of Passiflora growing in the Carolinas In New Zealand and Australia the fruit has become a popular one on the market." (*Fairchild.*)

12900 to 12908.

From Washington, D. C. Grown on the Potomac Flats under the direction of Dr. R. H. True, Physiologist in Charge of Drug and Medicinal Plant Investigations. Received February 5, 1905.

A collection of drug and medicinal plant seeds, as follows:

12900. Atropa belladonna. **Belladonna.**

12901. Carum carvi. **Caraway.**

12902. Conium maculatum. **Poison hemlock.**

12903. Coriandrum sativum. **Coriander.**

12904. Lobelia inflata. **Lobelia.**

12905. Satureja hortensis. **Summer savory.**

12906. Papaver somniferum. **Poppy.**

A white-seeded opium poppy.

12907. Papaver somniferum. **Poppy.**

A blue-seeded opium poppy.

12908. Chenopodium anthelminticum. **American wormseed.**

12909. Sechium edule. **Chayote.**

From New Orleans, La. Received thru the J. Steckler Seed Company, February 11, 1905.

12910. Olea europea. **Olive.**

From Tunis, North Africa. Received thru Mr. T. H. Kearney, February 13, 1905.

Chitoni. "This is the principal and best oil variety of northern Tunis, but is said not to do so well in drier and hotter parts." (*Kearney.*)

12911 to 12917.

From Brookings, S. Dak. Received thru Prof. N. E. Hansen, Agricultural Experiment Station, January 18, 1905.

A collection of ornamentals, as follows:

12911. (Undetermined.) **"Siberian sand thorn."**

12911 to 12917—Continued.

12912. CARAGANA MICROPHYLLA.

12913. CARAGANA ARBORESCENS. **Siberian pea tree.**

12914. SALIX sp. **Niobe weeping willow.**

12915. ROSA RUGOSA. **Pasture rose.**

12916. SALIX sp. **Ural willow.**

12917. SALIX VIMINALIS REGALIS.

12918. BETA VULGARIS. **Sugar beet.**

From Fort Collins, Colo. Received thru the Colorado Experiment Station, February 14, 1905.

Kleinwanzleben.

12919. RAPHANUS SATIVUS. **Radish.**

From Fairfield, Wash. Received thru Mr. E. H. Morrison, February 13, 1905.

Crimson Giant Forcing. Grown from S. P. I. No. 9487.

12920. NICOTIANA TABACUM. **Tobacco.**

From Washingtonboro, Lancaster County, Pa. Received thru Mr. Frank C. Wittmer, February 14, 1905.

12921 to 12926.

From Sfax, Tunis, North Africa. Received thru Mr. T. H. Kearney, February 17, 1905.

12921. OLEA EUROPAEA. **Olive.**

"The *Chemlali* variety, being probably the best adapted of all olives to a dry, hot climate, will be useful as a stock even if it does not succeed with us as an oil variety." (*Kearney.*)

12922. PISTACIA VERA. **Pistache.**

White-skinned variety.

12923. PISTACIA VERA. **Pistache.**

Red-skinned variety.

12924. PISTACIA VERA. **Pistache.**

Male.

"Through the kindness of Mr. Leonardi, British vice-consul, I was able to visit a garden here (Sfax) belonging to two Italian Jews, where there are 16 pistache trees (one male). The gardeners told me there are three kinds of pistaches here, all with green kernels, but one having a white, one a red, and one a red-and-white streaked skin. The first is considered the best, and from a tree of this kind, said to bear very heavily, was taken most of the grafting wood (12922). Grafting can be done successfully here up to the end of February." (*Kearney.*)

12925. PUNICA GRANATUM. **Pomegranate.**

"Pomegranate cuttings taken from a single bush, said to be a very fine, large, red-fruited one. Here it is propagated by cutting off the vigorous root shoots where they are about a half inch thick and sticking them into the ground so that the main stem is horizontal and is covered with earth, while the stiff, divergent branches stick up vertically. In this way a good-sized bush, bearing well, is obtained in two years." (*Kearney.*)

12926. (Undetermined.)

12927 to 12929. TRIFOLIUM sp. **Clover.**

From Corfu, Greece. Received thru Mr. C. S. Scofield in 1901. Seeds gathered on the place of Mr. Antonio Colla.

12927. TRIFOLIUM MARITIMUM. **12929.** TRIFOLIUM PROCUMBENS.

12928. TRIFOLIUM POLYSTACHYUM.

12930 and 12931. MANGIFERA INDICA. **Mango.**

From Honolulu, Hawaii. Presented by Mr. G. P. Wilder. Received February 20 and 21, 1905.

12930. *Russet.* **12931.** (Not named.)

12932. CARUM GAIRDNERI (?).

From Winslow, Wash. Received thru Mr. John L. Hubbard, March 6, 1905.

"This plant grows thruout eastern Washington, Oregon, and Idaho, and is called by the Indians on the Umatilla Reservation, in eastern Oregon, *Sow-itk*. This plant is similar in foliage to the carrot, is a hardy perennial with a root similar to the sweet potato, and is very pleasant to the taste, either raw or cooked. When it is raw the meat is about the consistency of a raw potato, of a sweet taste; when cooked it becomes mealy, like a baked sweet potato. It was used extensively as a food staple by the Indians thruout the Northwest before the advent of the white people, and is used by them to some extent yet.

"That the plant is susceptible of material development is proven by its being found to grow much larger in plowed fields or cultivated soil, where the roots have not been destroyed by such cultivation. I believe that if your Department would give this matter your attention a new and valuable vegetable would be added to the food products of the country." (*Letter dated January 30, 1905, from Mr. Hubbard.*)

Mr. F. V. Coville, botanist, in a letter dated March 16, 1905, gives the following information: "The plant is widely used for food among the northwestern Indians. The late Major Bendire, of the United States Army, considered it one of the most delicious vegetables he had ever tasted. I shall be very glad, indeed, to see Mr. Oliver take up its culture with a view to its domestication. It would be a vegetable somewhat of the type of the sweet potato. You will be interested to know that, by reason of the summer drought prevalent in the regions where the plant grows, the growing period of the species is short, a fact which will be very advantageous in connection with its proposed domestication."

12933 to 12937. PERSEA GRATISSIMA. **Avocado.**

From Miami, Fla. Propagated by Prof. P. H. Rolfs, pathologist in charge of Subtropical Laboratory. Numbered February 21, 1905.

12933.

Baldwin. "Tree a vigorous grower, with strong central stem; branches rather rigid; light bloomer, but heavy cropper. Blooms in February and March. Fruit at best in August; drops in September. Ripens uniformly. Shape of fruit approaching oblong, 4 by 5½ inches, not regular; color green, with a few yellowish streaks; rind smooth, thin; stem small; meat deep cream, one-fourth green, firm; flavor excellent. Seeds are rather large, firm in cavity. Buds do not take readily. Named for Mr. Baldwin, of Miami, Fla., who owns the original tree." (*Rolfs.*)

12934.

Chappelow. "Tree grows vigorously; branches diffuse, slender, inclined to droop; bark of young branches shiny, greenish yellow. Good cropper and abundant bloomer. Blooms in January and February; fruit ripens in June and July.

"Shape of fruit, bottle-necked, 2½ by 4½ inches; color dull purple; skin thin, leathery; meat greenish near rind, whitish toward seed; seed medium; firm in cavity; edible qualities good, but different from other type. The buds take readily and the tree stands more cold than other varieties planted. Most useful for home consumption. Named for Mr. William Chappelow, Monrovia, Cal. Buds secured thru Mr. William A. Taylor." (*Rolfs.*)

12933 to 12937—Continued.

12935.

Family. "A strong growing tree of spreading habits, being an abundant bloomer and moderate cropper. Blooms in late February and during March. Ripens fruit during July, August, September, and into October.

"Shape of fruit variable, from pear-shaped to long oblong, nearly banana-shaped; size, variable from 6 by 3½ to 3½ by 1½ inches; color purple, with scarlet streaks, very attractive; skin medium thick, smooth; stem large; meat yellow, free from fiber; flavor good, seed small, loose in cavity.

"The principal merit of this variety lies in extending its period of ripening over so long a time, being distinctly useful for family purposes, but should not be planted for commercial purposes, as the extended ripening period necessitates several pickings. Buds take readily." (*Rolfs.*)

12936.

Pollock. "Tree moderate grower, heavy bearer, profuse bloom, limbs rigid; blooms in February and March; ripens in September and October. Upright grower with strong central stem.

"Fruit pear-shaped, being about 6½ by 4½ inches; weight up to 3½ pounds; color greenish; rind medium; meat yellowish; flavor good; seed medium. Buds take readily, and this variety is desirable on account of very large fruits. Named for Mr. Pollock, of Miami, Fla., who owns the original tree." (*Rolfs.*)

12937.

Trapp. "Tree upright grower with strong central stem; not a vigorous grower. Produces abundant bloom late in February and March. A heavy cropper, maturing in October and November, some of the fruits remaining on the trees until the Christmas holidays.

"Shape of fruit rather between round and oblong, about 4½ by 3½ inches, regular; color greenish with yellowish streaks; thin rind; small stem; meat rather deep yellow; seed variable, sometimes very large and firm in cavity, and again very small and loose in cavity.

"The special merit of this variety lies in the fact that the fruit remains on the tree until late in the season. Named for Mrs. Trapp, Cocoanut Grove, Fla., who owns the original tree." (*Rolfs.*)

12938. GOSSYPIUM sp. **Cotton.**

From Peru, South America. Received thru W. R. Grace & Co., 1 and 2 Hanover square, New York, N. Y., February 13, 1905.

"Full rough" *Catacaos* seed. Represents the seed of the full rough Peruvian cotton, which is grown in the Piura and the surrounding districts in the northern part of Peru.

This "Full rough" cotton is exported to New York and Liverpool markets. There are two crops every year: "San Juan" and "Navidad." The former is largest and is gathered in August to September, while the latter is ready for shipment from the end of January thru April. We would say that the average annual crop was 18,000 bales of 200 pounds.

Many experiments have been made to plant this seed and grow the same grade of cotton in other localities but without success, because soil similar to that of the Piura districts (where it seldom rains) is yet to be found. Every attempt to transplant this grade to any other place in Peru was either a complete failure or the cotton degenerated into "Moderate rough."

12939. ZEA MAYS. **Corn.**

From Montgomery, Ala. Received thru Charles & Nelson, No. 8 Commerce street, February 11, 1905.

Mexican June.

12940 to 12957. VITIS spp. **Grape.**

From Thomery, France. Received thru Etienne Salomon & Sons, February 24, 1905.

12940. *Alicante Bouschet × Riparia 141–A.*

12941. *Berlandieri × Riparia 157–11.*

12940 to 12957—Continued.

12942. *Berlandieri × Riparia 420–B.*

12943. *Berlandieri Lafont No. 9.*

12944. *Bourisquou × Rupestris 3907.*

12945. *Carignane × Rupestris 503.*

12946. *Riparia × Rupestris-Aramon-Jaeger 201.*

12947. *Riparia Ramon.*

12948. *Rupestris Mission.*

12949. *Riparia Grand Glabre × Aramon-Rupestris 4110.*

12950. *Riparia × Cordifolia-Rupestris 106–8.*

12951. *Rupestris × Berlandieri 301–37–152.*

12952. *Riparia Colorado.*

12953. *Solonis × Riparia 1615.*

12954. *Vialla.*

12955. *Aramon × Riparia 143–A.*

12956. *Cinerea-Rupestris × Riparia 239.*

12957. *Riparia × Rupestris 108–103.*

12958. IPOMOEA sp.

From Cuba. Received thru Prof. P. H. Rolfs, Subtropical Laboratory, Miami, Fla., February 23, 1905.

Seeds of a variety of Ipomœa that is found in Cuba. Said to have yellow flowers.

12959. (Undetermined.) **Matundulaku.**

From Eureka City, Transvaal. Presented by A. T. Metcalf, esq., thru Hon. W. Stanley Hollis, United States consul, Lourenço Marquez, Portuguese East Africa. Received February 23, 1905.

"Evidently a plum-like fruit with a very large stone and little meat." (*Fairchild.*)

12960. GARCINIA LIVINGSTONEI. **Pimbe.**

From Lourenço Marquez, Portuguese East Africa. Presented by Hon. W. Stanley Hollis, United States consul. Received February 23, 1905.

12961. HYDRANGEA SCANDENS.

From Philadelphia, Pa. Received thru Thomas Meehan & Sons, February 23, 1905.

12962. (Undetermined.)

From Lourenço Marquez, Portuguese East Africa. Presented by Hon. W. Stanley Hollis, United States consul. Received February 23, 1905.

A Lourenço Marquez fruit tree.

12963 to 12970.

From Philadelphia, Pa. Received thru W. A. Burpee & Co., February 17, 1905.

Flower seeds for stock purposes.

12971 to 12987.

From New York, N. Y. Received thru J. M. Thorburn & Co., February 17, 1905.

Flower seeds for stock purposes.

12988. ANTIRRHINUM MAJUS. **Snapdragon.**

From Fairfield, Wash. Received thru Mr. E. H. Morrison, January 3, 1905.

12989. COSMOS BIPINNATUS. **Cosmos.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., January 10, 1905.

12990. KOCHIA SCOPARIA.

From Detroit, Mich. Received thru Mr. William McRobbie, gardener of the Palmer Park Gardens, November 7, 1904.

12991. MEDICAGO SATIVA. **Alfalfa.**

From Excelsior, Minn. Received thru Mr. A. B. Lyman, February 24, 1905.

Grimm. A variety attracting attention in the Northwest. (See Bulletin (press), No. 20, University Exp. Sta., St. Anthony Park, Minn., March, 1904, on Hardy Alfalfa in Minnesota.)

12992. MEDICAGO SATIVA. **Alfalfa.**

From Bassorah, Arabia. Secured thru H. P. Chalk, esq., American consular agent. Received February 27, 1905.

"From preliminary tests of this alfalfa, made from a previous importation, under S. P. I. No. 8806, it seems probable that this particular strain will make a more rapid growth than the ordinary varieties cultivated in this country and may prove especially valuable for certain regions in southern California and Arizona. These preliminary experiments have been carried on at the Pomona substation in California, where this variety, together with the ordinary and the Turkestan varieties, planted side by side at the same time, exhibited most unusual rapidity of growth." (*Fairchild.*)

12993. HORDEUM DISTICHUM NUTANS. **Two-row barley.**

From Minneiska, Minn. Received thru Mr. H. L. Whitman, February 23, 1905.

Hanna.

12994. ANEMONE ALPINA SULPHUREA.

From Carsethorn, Dumfries, Scotland. Presented by Mr. Samuel Arnott. Received February 25, 1905.

12995 and 12996. PINGUICULA spp.

From Mexico. Presented by Dr. J. N. Rose. Received February 15, 1905.

12995. PINGUICULA sp. **12996.** PINGUICULA CAUDUTA.

12997. SPREKELIA FORMOSISSIMA.

From Mexico. Presented by Dr. J. N. Rose. Received February 15, 1905.

"This is an old garden favorite, but is especially interesting, as it comes from the high mountains of central Mexico. The home of this species is usually given as South America or Guatemala. Only one species of Sprekelia is recognized by J. G. Baker and other writers on this group, but there are certainly two, if not more, very distinct species. This plant has flowered in Washington several times. The flowers are large, nearly 4 inches long, and deep crimson. It differs only slightly from descriptions. The bulb scales are black, not brown, as usually given. Bulbs were collected in a shallow mountain swamp of central Mexico in 1903 (No. 813)." (*Rose.*)

12998 and 12999. PUNICA GRANATUM. **Pomegranate.**

From Degach (El Oudiane), Tunis. Received thru Mr. T. H. Kearney, March 7, 1905.

12998. *Gabsi.*

A variety having large, pale-red fruit. "The Gabsi is very likely the same 'variety from Gabes,' of which I sent cuttings (S. P. I. No. 12566) in December from Susa." (*Kearney.*)

12999. *Tunisi.*

"A variety smaller than the preceding and having deep-red fruit. Both varieties were obtained at Degach (El Oudiane), the oasis of the Jerid most renowned for its pomegranates, oranges, and olives, while Tozer is celebrated for its figs. These are the two most widely grown kinds here (Tozer). The pomegranates of Gafsa are even more celebrated." (*Kearney.*)

13000. BRASSICA OLERACEA BOTRYTIS. **Cauliflower.**

From Copenhagen, Denmark. Received thru Mr. A. Hansen, seedsman, February 27, 1905.

Dwarf Erfurt.

13001. LYCOPERSICUM ESCULENTUM. **Tomato.**

From Danville, Ky. Received from Mrs. W. B. Thomas, thru Mr. H. Giovannoli, of the United States Treasury Department, March 1, 1905.

Sample of tomato seed grown from seed distributed by the Department of Agriculture in 1891.

13002 to 13006. CITRUS hyb.

From Glen St. Mary, Fla. Propagated by Mr. G. L. Taber, for distribution by the Office of Seed and Plant Introduction and Distribution. Received December 16, 1904.

Hybrid citrus fruits developed by Dr. H. J. Webber, in charge of the Department Plant Breeding Laboratory. Of these hybrids two are called hardy and two are tender. None are true oranges except the two tangerines, *Weshart* and *Trimble*. The hardy varieties constitute a new group designated by Doctor Webber as citranges. They are the *Rusk* and the *Willits*.

The fifth of the lot is a representative of a new group called the "tangelo," being a hybrid between the tangerine and the pomelo. The variety has been called the *Sampson*.

Doctor Webber describes the varieties as follows:

13002.

The *Rusk* citrange (P. B. No. 716) is a hybrid between the common sweet orange (female parent) and the trifoliate orange (male parent). The tree resembles that of the trifoliate orange in character, having trifoliate leaves which are much larger than those of the ordinary trifoliate. It is very productive and bears a small fruit about 2 to 2½ inches in diameter, which is somewhat similar to the tangerine. The fruit is nearly seedless, having only one seed to two fruits, and is very juicy, yielding a much larger quantity of juice than the best lemons of the same size. It makes a very pleasant citrangeade, and can be used for making pies, marmalades, jellies, and for other culinary purposes. Eaten with sugar, it is a very desirable breakfast fruit.

13003.

The *Willits* citrange (P. B. No. 777) is a hybrid between the trifoliate orange (female parent) and the common sweet orange (male parent), being thus the reciprocal hybrid of the *Rusk* citrange. The tree, as in the case of the *Rusk*, is similar to the trifoliate, but with much larger leaves, and it is semi-evergreen. The fruit is nearly seedless, having an average of only one seed to about four fruits. The fruit is slightly larger than the *Rusk*, the largest being about 2½ inches in diameter. The pulp is of a different color from the *Rusk*, being a lemon yellow. The flavor is also much more acid. The fruit is valuable for making citrangeade, pies, marmalades, jellies, and for other culinary purposes. It is too acid to be eaten out of hand.

13004.

This is one of our new hybrid citrus fruits, produced by crossing the tangerine and pomelo. The fruit differs from either parent, but combines the qualities of both. Differing from any other type of citrus fruit, it has been referred to a new group termed the "tangelo" group, and this particular variety has been designated the *Sampson*. The "Sampson tangelo" (P. B. No. 1316) forms a tree resembling in all essential characters the ordinary orange, and is as easily injured by cold. The fruit is about the size of the navel orange but of lighter color, being intermediate in size and color between the tangerine and pomelo. The flavor is sprightly acid, like the grapefruit, but with a slight suggestion of the bitter of that fruit. A striking and highly desirable characteristic is its easily removable rind, derived from the tangerine parent, so that it might be called a "kid-glove" pomelo. It is a tender tree and adapted to distribution in the present citrus-growing regions of Florida and California.

13002 to 13006—Continued.

13005 and 13006. *New tangerine oranges.*

No. 13005 (P. B. No. 628) has been named the *Weshart*, and No. 13006 (P. B. No. 627) has been named the *Trimble*.

A large number of hybrids have been made in the course of the investigations between the tangerine and various varieties of the sweet orange, with the object of producing an orange having the quality and character of the sweet orange with the loose, easily removable rind of the tangerine. Among the different hybrids which have thus far fruited, two have produced fruits which in all respects resemble true tangerines but are two weeks earlier than the earliest tangerines, and are larger, richer in color, and of rather superior quality.

13007 to 13026.

From Philadelphia, Pa. Received thru Henry A. Dreer (Incorporated), February 28, 1905.

A collection of flower seeds to be grown for stock.

13027 to 13034. SOLANUM TUBEROSUM. **Potato.**

From Auchtermuchty, Scotland. Received thru Prof. L. R. Jones, of the Vermont Experiment Station, March 3, 1905.

A collection of European potatoes for breeding purposes, as follows:

13027.

British Queen. (L. R. Jones's No. 43.) Originated by Findlay. Second early; white skin and flesh; kidney; quality reputed excellent and yield good. "Best second early in cultivation in England to-day," according to one high authority. Mr. Findlay claims that it is highly disease resisting, but others do not so consider it. Especially commended for trial in Florida, etc.

13028.

Royal Kidney. (L. R. Jones's No. 44.) Originated by Findlay, 1901. Late second early; white; quality excellent; yield good. Mr. Findlay claims this to be one of the hardiest disease-resisting varieties he has sent out. Commended for trial both in the North and South, as well as in Colorado.

13029.

Empire Kidney. (L. R. Jones's No. 45.) One of Findlay's recent varieties, and especially recommended by him as disease resisting and worthy of trial. Heavy yielder; good quality; said to be best on fertile loam. Selected especially for trial in the North and West, rather than in the South.

13030.

Evergood. (L. R. Jones's No. 46.) Originated and sent out by Findlay, about 1899. Medium late; white; oval; high quality; heavy cropper. Characterized by prolonged autumnal growth if the season favors. Commended by Mr. Findlay and others as disease resisting. Selected especially for trial in the North and West.

13031.

Goodfellow. (L. R. Jones's No. 47.) Originated by Mr. Findlay. Medium late; white skin and flesh; round; quality fine; yield good. Characterized by Mr. Findlay and others as disease resisting. Selected especially for trial in the North and West.

13032.

Up-to-Date. (L. R. Jones's No. 48.) One of Findlay's varieties sent out many years ago and now one of the standard main crop varieties of England. Commended as still in a fair degree disease resisting, altho past its prime in this respect. Medium late; white; excellent quality; strong yielder. Commended especially for trial in the North and West.

13027 to 13034—Continued.

13033.

Northern Star. (L. R. Jones's No. 49.) Medium late; white; round; quality and yield reputed excellent. One of Mr. Findlay's most promising recent introductions (first sent out in 1902). He says "the most disease-resisting potato I have ever known." Some others who have tried it are less optimistic as to this. Commended especially for trial in the North and West.

13034.

Eldorado. (L. R. Jones's No. 50.) Findlay's introduction (1903), and the most advertised potato in England to-day. Sold last year at rate of £200 sterling per pound weight. Medium late; white; elongated oval. Reputed of high quality and yield. Commended most highly by Mr. Findlay as disease resisting, but some others who have watched it are less hopeful of any remarkable characteristics in this direction.

13035 to 13076. ORYZA SATIVA. **Rice.**

From Formosa. Presented by the Agricultural Department of the Formosan Government, thru Mr. Fred. Fisher, United States consul at Tamsui, Formosa. Received March 2, 1905.

The first 20 numbers of this collection are "first crop" and the remainder are "second-crop" samples.

13035. *Chieng Yu.*

From Kirai Sho, Kokansho Seichuri, Ako Prefecture. Clayish soil.

13036. *Pei Cham.*

From Shinsho Shisho, Daichikuri, Hozan Prefecture. Sandy clay soil.

13037. *Chieng Yu.*

From Saikosho, Koryngairi, Hozan Prefecture. Sandy clay soil.

13038. *O Kaku.*

From Ryosan jusho, Rankoho, Taichu Prefecture. Sandy soil.

13039. *Tso Toa Hoe.*

From Sankaitsusho, Emmukabo, Shoka Prefecture. Sandy soil.

13040. *O Kaku.*

From Eibansho Kochokuho, Taihoku Prefecture. Clayish soil.

13041. *Kuai Kau Otowa.*

From Gynhosho, Chikuhoku Itsupo, Shinchiku Prefecture. Sandy soil.

13042. *Pei Bei Fun.*

From Dorawan Sho, Bioritsu Prefecture. Sandy soil.

13043. *Sam Sai.*

From Shinsho, Hokutoho, Nanto Prefecture. Sandy soil.

13044. *O Cham Ko.*

From Tosei Kosho, Dabyo Nanho, Kagi Prefecture. Sandy soil.

13045. *Pa Tei Don.*

From Chuhosho Kagi Toho, Kagi Prefecture. Clayish soil.

13046. *Nun Key.*

From Chinshi, Manrikisho, Enzanho, Gilan Prefecture. Sandy soil.

13047. *An Ka Tsu.*

From Saikosho, Koryugairi, Hozan Prefecture. Sandy clay.

13048. *Pei Gya Nun.*

From Ryo Sanjusho, Rankoho, Taichu Prefecture. Sandy soil.

13035 to 13076—Continued.

13049. *Check Shey.*

From Kokasho Shiran Sampo, Taihoku Prefecture. Lavitic mixt with clayish soil.

13050. *Jippon Tsu.*

From Gynhoshu, Chikuho, Itsupo, Shinchiku Prefecture. Sandy soil.

13051. *Ban Hoe.*

From Lanrisho, Bioritsu Niho, Bioritsu Prefecture. Sandy soil.

13052. *Pei.*

From Horishagai, Horishaho, Nanto Prefecture. Clayish soil.

13053. *Ran Hoe Tsu.*

From Shanshi Kyakusho, Dabyo Nanho, Kagi Prefecture. Sand and loam.

13054. *Ban Hoe.*

From Iketsusho, Shiiho, Gilan Prefecture. Clayish soil.

13055. *Tsu Pian.*

From Kaihosho, Seichuri, Akoku, Ako Prefecture. Sandy soil.

13056. *Pa Chiam.*

From Shintosen Sho, Seikari, Hozan Tsuku, Hozan Prefecture. Sandy soil.

13057. *O Kaku.*

From Gokosho, Daichikuri, Hozan Prefecture. Sandy clay.

13058. *Pei Kaku.*

From Hyoshitoyo Daimokukori, Tainan Prefecture. Sandy soil.

13059. *Go Ki Tsoa.*

From Horishagai, Horishoho, Nanto Prefecture. Clayish soil.

13060. *O Kaku.*

From Nantogai, Nantoho, Nanto Prefecture. Clayish soil.

13061. *U Kyo.*

From Nantogai, Nantoho, Nanto Prefecture. Clayish soil.

13062. *Shun Tsui Ban.*

From Sotosho, Hokutoho, Nanto Prefecture. Clayish soil.

13063. *Shi Kin Tsai.*

From Shikyotosho, Shushuho, Nanto Prefecture. Clayish soil.

13064. *Chino.*

From Shikyotosho, Shushuho, Nanto Prefecture. Clayish soil.

13065. *O Ka Hoe Rai.*

From Dakusuisho, Sarenkaho, Nanto Prefecture. Clayish soil.

13066. *Ban Na.*

From Shinsho, Hokutoho, Nanto Prefecture. Clayish soil.

13067. *Chien Yu.*

From Shinkogai, Siiho, Kagi Prefecture. Clayish soil.

13068. *O Kau.*

From Chuhosho, Kagiho, Kagi Prefecture. Clayish soil.

13069. *Toa Tsu.*

From Boryo, Boryosho, Tokari, Ako Prefecture. Loamy soil.

13070. *Toa Tsu.*

From Shinsho Shisho, Daichikuri, Hozan Prefecture. Sandy clay soil.

13035 to 13076—Continued.

13071. *Pei Tsu.*

From Gokosho, Daichikuri, Hozan Prefecture. Sandy clay soil.

13072. *Cha Ah Tsu.*

From Sankai Tsusho, Emmukaho, Shoka Prefecture. Sandy soil.

13073. *Tao Ro.*

From Shojibokuko, Naisho Shisho, Gai Shinka Nanri, Tainan Prefecture. Clayish soil.

13074. *Hon Hoe.*

From Nairokusho, Nantoho, Nanto Prefecture. Clayish soil.

13075. *Gya Loon.*

From Nairokusho, Nantoho, Nanto Prefecture. Clayish soil.

13076. *Pei Tsu.*

From Kobo Suido, Dabyo Nanho, Kagi Prefecture. Sandy soil.

NOTE.—In the above list, Nos. 13035 to 13046 and 13055 to 13068 were marked "*Oryza utilissima*," while Nos. 13047 to 13054 and 13069 to 13076 were labeled "*Oryza glutinosa*."

13077. KOCHIA SCOPARIA.

From Takoma Park, D. C. Grown by Mr. A. J. Pieters during the season of 1904 for stock purposes.

13078. AGARICUS sp. **Mushroom.**

From Tokyo, Japan. Received thru Mr. T. Watase, president of the Tokyo Plant, Seed, and Implement Company, March 7, 1905.

"*Shiitake.*" "Spawn of the edible species of Japanese mushroom, which is cultivated on an immense scale in the forests of Japan. It is a tree-inhabiting fungus and the Japanese have developed a special system of culture by means of which they can produce immense quantities at little expense. This spawn was introduced especially for the experiments of Dr. B. M. Duggar, of the Agricultural Experiment Station, Columbia, Mo., and is well worth calling to the attention of the mushroom growers of America, who should be given a chance to test this in comparison with the ordinary *A. campestris*, which is grown almost exclusively on beds of manure. This variety of Agaricus is keenly relished, not only by Japanese but by Europeans living in Japan." (*Fairchild.*)

13079. GOSSYPIUM sp. **Cotton.**

From Lourenço Marquez, East Africa. Presented by Hon. W. Stanley Hollis, United States consul. Received March 3, 1905.

"From the slopes of the Lebombo Mountains, in the district of Lourenço Marquez." (*Hollis.*)

13080 to 13083. IPOMOEA HEDERACEA. **Japanese morning-glory.**

From Yokohama, Japan. Received thru the Yokohama Nursery Company, March 6, 1805.

13080. Common single.

13081. Double.

13082. Giant.

13083. Single fringed.

13084. SECHIUM EDULE. **Chayote.**

From Mayaguez, P. R. Received thru Mr. O. W. Barrett, of the Agricultural Experiment Station, March 8, 1905.

Fruits secured from Mr. S. van L. Lippitt, of Mayaguez, P. R.

13085. XANTHOSOMA SAGITTIFOLIUM. **Yautia.**

From Mayaguez, P. R. Received thru Mr. O. W. Barrett, of the Agricultural Experiment Station, February 27, 1905.

Rolliza. Tubers of the native Porto Rican Yautia "No. 1," from selected plants showing no sign of any fungous disease and growing in new soil. (For description, see No. 15417.)

13086. COLOCASIA sp. **Taro.**

From Mayaguez, P. R. Received thru Mr. O. W. Barrett, of the Agricultural Experiment Station, February 27, 1905.

Tubers of the *Dasheen* Colocasia from Trinidad, British West Indies. (For description, see No. 15395.)

13087. PYRUS MALUS. **Apple.**

From Amassia, Asia Minor. Presented by Mr. H. Caramanian. Received March 11, 1905.

Misket. "We found it to be a sweet apple of very firm texture and of rather ordinary quality. We do not consider it equal in quality to such varieties as *Lady Sweet, Winter Paradise, Victoria, Green Sweet,* or *Tolman.* It may have value for warm climates, however, and on this account I think it would be well to place scions of it for fruiting as quickly as possible by top-working on bearing trees at some representative southern points." (*W. A. Taylor.*)

13088. ALLIUM CEPA. **Onion.**

From Santa Clara, Cal. Received thru C. C. Morse & Co., March 15, 1905.

Grown from S. P. I. No. 9318.

13089. RHEUM OFFICINALE. **Rhubarb.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., March 15, 1905.

13090. AVENA SATIVA. **Oat.**

From Lincoln, Nebr. Received thru Prof. T. L. Lyon, Agricultural Experiment Station, March 10, 1905.

Kherson.

13091. AVENA SATIVA. **Oat.**

From Brandon, Wis. Received thru Mr. F. E. Jones, March 16, 1905.

Swedish Select. Grown from S. P. I. No. 2788. In the spring of 1899 Mr. David Jones, Brandon, Wis., planted an ounce of No. 2788. Thirty-two seeds grew, and from this little plot he and his neighbors raised 200,000 bushels of oats in 1904.

13092. AGROPYRON TENERUM. **Slender wheat-grass.**

From Brandon, Manitoba. Received thru A. E. McKenzie & Co., March 16, 1905.

13093. RHEUM PALMATUM TANGHUITICUM. **Rhubarb.**

From Paris, France. Received thru Messrs. Vilmorin-Andrieux & Co., March 17, 1905.

13094. GOSSYPIUM HIRSUTUM. **Cotton.**

From Guatemala. Received thru Mr. O. F. Cook, March 17, 1905.

Rabinal. "Cultivated by the Quiche Indians of Rabinal and other neighboring places of the dry plateau region of central Guatemala. A variety of the Upland type, grown as an annual crop, tho really a perennial. The stalks are cut back to the ground every year. The new shoots set flowers and fruit with great promptness, which, with the assistance of the native turkeys, enable a crop to be secured in spite of the presence of the boll weevil.

"This variety may be of interest in southern and southwestern Texas, either as a perennial or an annual. Even in the first year it is likely to be an early-maturing sort." (*Cook.*) (No. 1.)

13095. GOSSYPIUM HIRSUTUM. **Cotton.**

From Guatemala. Received thru Mr. O. F. Cook, March 17, 1905.

Kekchi. "Grown by the Indians at Secanquim, Cajabon district, Alta Vera Paz, Guatemala, the original locality of the weevil-eating keleps. This variety is of dwarf habit. It begins fruiting while still very young, and matures a crop in six months even in a humid tropical climate where other kinds of cotton would probably require a much longer time. It is expected that in the United States this will prove to be an extra-early variety, tho two or three years of acclimatization may be required. Of the varieties now in the United States the *Kekchi* cotton most nearly resembles the *King*, but it seems to possess the desirable qualities of that variety to an even greater degree and the lint is longer and of better quality." (*Cook.*) (No. 2.)

13096. GOSSYPIUM HIRSUTUM. **Cotton.**

From the market of Coban, Alta Vera Paz, Guatemala. Received thru Mr. O. F. Cook, March 17, 1905.

"Supposed to have been grown in the valley of the Polochic River. Probably similar to the *Kekchi* cotton, tho the Indians belong to another tribe." (*Cook.*) (No. 3.)

13097. GOSSYPIUM HIRSUTUM. **Cotton.**

From Retalhuleu, Guatemala. Received thru Mr. W. R. Maxon, March 17, 1905.

Pachon. "The variety most extensively grown in the western part of Guatemala, where a considerable cotton industry exists. Mr. Maxon was informed that this variety was originally introduced into Guatemala from Peru, but an examination of specimens shows that it is an Upland form similar to the *Kekchi* cotton and with the same weevil-resisting adaptations. It is said to mature a crop in five months." (*Cook.*) (No. 4.)

13098. GOSSYPIUM HIRSUTUM. **Cotton.**

From Retalhuleu, Guatemala. Received thru Mr. W. R. Maxon, March 17, 1905.

Ixcacco. "A brown cotton of the Upland type, similar to the brown form of the *Kekchi* cotton. The cotton brings the same price as the *Pachon* and is thought to have a stronger lint." (*Maxon.*) (No. 5.)

13099. GOSSYPIUM HIRSUTUM. **Cotton.**

From Retalhuleu, Guatemala. Received thru Mr. W. R. Maxon, March 17, 1905.

"Seeds of a supposed hybrid between *Pachon* and *Ixcacco* cotton. A single boll of this type was found on a plant the other bolls of which were white and apparently pure *Pachon.*" (*Maxon.*) (No. 6.)

13100. GOSSYPIUM HIRSUTUM. **Cotton.**

From Retalhuleu, Guatemala. Received thru Mr. W. R. Maxon, March 17, 1905.

"A smooth-seeded variation of *Pachon* cotton said to occur sporadically in the fields of the hairy-seeded form. The fiber is said to be not quite so long as the regular *Pachon.* This form is popularly believed to be that originally cultivated by the Indians in this locality." (*Maxon.*) (No. 7.)

13101. Gossypium hirsutum. **Cotton.**

From Cucanha, near Tucura, Guatemala. Received thru Mr. O. F. Cook, March 17, 1905.

"A cotton similar to *Kekchi* grown in the valley of Polochic River." (*Cook.*) (No. 8.)

13102. Mesembryanthemum geminatum (?).

From Sfax, Tunis. Received thru Mr. T. H. Kearney, March 17, 1905.

"Cuttings of a variety of Mesembryanthemum that is used for making lawns on land that is so alkaline that deposits of white alkali may be seen beneath the mat of the plant. I believe this will be valuable as a cover for alkaline soils." (*Fairchild.*)

13103. Carica papaya. **Papaw.**

From Esmeraldas, Ecuador. Presented by Mr. George D. Hedian. Received March 16, 1905.

13104. Aleurites cordata. **Tung-shu or wood-oil tree.**

From Hankow, China. Presented by Consul-General L. S. Wilcox and received at Chico, Cal., March 18, 1905.

"The fruit of this tree is the source of "wood oil," which is being imported in large quantities by this country, where it is used in the manufacture of paints, fine varnishes, and soaps. The tree itself is of stately appearance, with green, smooth bark and spreading branches, making it one of the finest of shade trees. It has been styled, and worthily so, "the national tree of China." The Tung-shu flourishes thruout the Yangtze Valley in latitude 25° to 34° N. It is said not to bear when subjected to temperatures as low as 20° F., altho it will stand any degree of heat. The trees are raised from seed in a bed and transplanted when about a foot high, and seem to do well in almost any kind of soil. The Tung-shu is also propagated by cuttings. It is a rapid grower and will come into bearing in from three to six years, much depending upon the fertility of the soil. The yield of nuts from an average tree may be put at anywhere from 20 to 50 pounds, while the percentage of oil obtained from the nut is 40 per cent. The Chinese find a great many other uses for the oil of this tree; also for its wood and the refuse from the wood oil nut after extraction of the oil. Persons growing the wood oil tree should be cautioned against allowing the oil to come in contact with the skin, as it is extremely poisonous." (*Wilcox.*)

13105. Solanum commersoni. **Aquatic potato.**

From Burlington, Vt. Presented by Prof. William Stuart, Agricultural Experiment Station, thru Mr. W. A. Orton. Received March 21, 1905.

13106. Lilium hyb. **Lily.**

Seedlings resulting from pollinating flowers of *Lilium longiflorum eximium giganteum* (S. P. I. No. 11583) with *Lilium harrisii*. Crossing done by Mr. G. W. Oliver in the Department greenhouse during 1904.

13107. Papaver somniferum. **Poppy.**

From Philadelphia, Pa. Received thru Powers, Weightman & Rosengarter, March 21, 1905.

Opium seed from Asia Minor.

13108 to 13115. Rosa hyb. **Rose.**

From Sawbridgeworth, Herts, England. Received thru Thomas Rivers & Son, The Nurseries, March 23, 1905.

13108. *Conrad F. Meyer.*
13109. *Fimbriata.*
13110. *Mrs. Anthony Waterer.*
13111. *Rose Apples.*
13112. *Souv. de Christophe Cochet.*
13113. *Blanche de Coubert.*
13114. *Thusneldă.*
13115. *Repens Alba.*

13116 to 13129. Rosa hyb. **Rose.**

From Herts, England. Received from William Paul & Son, Waltham Cross, March 23, 1905.

13116. *Etoile de France.*
13117. *Countess Cairns.*
13118. *Earl of Warwick.*
13119. *Irene.*
13120. *Mrs. A. Byass.*
13121. *America.*
13122. *Atropurpurea.*
13123. *Belle Poitevine.*
13124. *Blanc Double de Coubert.*
13125. *Calocarpa.*
13126. *Chedane Guinoisseau.*
13127. *Mercedes.*
13128. *New Century.*
13129. *Rugosa Regliana.*

13130 and 13131. Castanea spp. **Chestnut.**

Received from Mr. T. E. Steele, Palmyra, N. Y., March 24, 1905.

13130. Castania crenata. Seedling Japanese chestnut.

13131. Castania sativa. Seedling Spanish chestnut.

13132. (Undetermined.) **Matondo.**

From Melsetter, Rhodesia, South Africa. Presented by Mr. W. M. Longden. Received March 23, 1905.

A fruit by the name of "Matondo," described by Mr. Longden as follows: "The tree is a large, evergreen one, casting a dense shade. It grows to a height of about 60 feet, has a spreading habit, and is a prolific bearer. Fruit oval in shape, with a smooth skin and faint veins; color when ripe, yellow; dark green when unripe. Size up to 3 inches by 2 inches in diameter. Peel tough and thick, not edible; exudes milky fluid, very bitter and distasteful. Flesh edible, jelly-like in appearance, sweet and pleasant to taste. It grows in the Sabi Valley principally, at an altitude of about 1,800 feet, where the climate is very warm and there is comparatively no frost."

"This fruit should be experimented with in Porto Rico, Hawaii, and southern California." (*Fairchild.*)

13133. Vitis sp. **Grape.**

From Algeria, North Africa. Presented by Dr. L. Trabut and forwarded by Mr. T. H. Kearney. Received March 27, 1905.

Boufarik (table). A desert-resistant grape.

13134. Agaricus sp. (?) **Mushroom.**

From Yokohama, Japan. Received thru Yokohama Nursery Company, March 27, 1905.

13135. Garcinia mangostana. **Mangosteen.**

From Buitenzorg, Java. Received thru Doctor Treub, March 24, 1905

13136 to 13142.

From Melsetter, Rhodesia, South Africa. Presented by Mr. W. M. Longden. Received March 27, 1905.

A collection of fruit trees, with descriptions by Mr. Longden, as follows:

13136. (Undetermined.) **Ivory nut.**

"It (the nut) grows on a palm tree, which sometimes reaches a height of 60 feet. The natives eat the spongy substance between the skin and kernel. The vegetable ivory is, I think, an article of commerce."

13136 to 13142—Continued.

13137. Anona sp. **Custard-apple.**

"Edible. Tree very much resembles the domestic variety; fruit has a delightful flavor."

13138. Ficus sp. **Fig.**

"Edible. Grows on the river banks. These have a sweet flavor. There is also another variety larger, perhaps, than any domestic fig. They are comparatively flavorless."

13139. (Undetermined.) **"Wild plum."**

"Edible. Tree very similar to your persimmon. Natives also eat the kernel, which has a nutty flavor with a touch of almond, and contains a large percentage of oil, which the natives extract."

13140. Euphorbia sp. (?). **"Footah."**

"Fruit is used by the natives for making a pleasant drink by soaking the ripe seeds in water, which turns milky when stirred. Seeds are also crusht for oil, of which they contain a large quantity. Tree grows to a height of about 50 feet; dense, shiny, dark-green foliage giving immense shade."

13141. (Undetermined.) **"Mutwzwa."**

"Edible. Flavor somewhat similar to damson. Grows in stony ground; bush about 7 feet in height."

13142. (Undetermined.) **"Eecha."**

"Species of nut. May be eaten raw, but is usually roasted by the natives. It is only to supplement food supplies in lean years."

13143 to 13153. Zea mays. **Sweet corn.**

First generation from S. P. I. Nos. 12557 and 12558. Distributed during the season of 1905 for further trial to test the effects of soil, location, etc.

13143 to 13147. *Stowell's Evergreen.* Grown from S. P. I. No. 12557.

13143. Received from Prof. J. C. Whitten, Columbia, Mo., February, 1905.

13144. Received from Mr. J. C. Robinson, Waterloo, Nebr., February, 1905.

13145. Received from Prof. R. A. Emerson, Lincoln, Nebr., February, 1905.

13146. Grown on the Arlington Farm during the summer of 1904.

13147. Received from A. Mitchelson & Son, Tariffville, Conn., February, 1905.

13148 to 13153. *Early Crosby.* Grown from S. P. I. No. 12558.

13148. Received from Prof. C. P. Ball, Minneapolis, Minn., February, 1905.

13149. Received from Prof. R. A. Emerson, Lincoln, Nebr., February, 1905.

13150. Received from A. Mitchelson & Son, Tariffville, Conn., February, 1905.

13151. Received from Mr. J. C. Robinson, Waterloo, Nebr., February, 1905.

13152. Received from Prof. J. C. Whitten, Columbia, Mo., February, 1905.

13153. Grown on the Arlington Farm during the summer of 1904.

13154. Pistacia sp. **Pistache.**

From Aintab, Turkey. Presented by Rev. A. Fuller thru Mr. Walter T. Swingle. Received March 27, 1905.

13155. Rhus copallina. **Sumac.**

From Austin, Tex. Presented by Mr. F. T. Ramsey. Received March 27, 1905.

13156 to 13158.

From Amassia, Turkey. Presented by Mr. H. Caramanian. Received March 29, 1905.

13156. Pyrus malus. **Apple.**

13157. Prunus domestica. **Plum.**

Uryäny. (See S. P. I. No. 10526.)

13158. Cydonia sp. **Quince.**

Adjem.

13159 to 13236. Iridaceae.

From Yokohama, Japan. Received thru Suzuki & Iida, New York, N. Y., March 25, 1905.

13159 to 13226. Iris kaempferi. **Iris.**

13159. *Gekka-no-nami.*
13160. *Shishi-odori.*
13161. *Kumoma-no-sora.*
13162. *Kumo-no-obi.*
13163. *Ho-o-jo.*
13164. *Gei-sho-ui.*
13165. *Sofu-no-koi.*
13166. *Manadsuru.*
13167. *Hana-no-nishiki.*
13168. *Yomo-no-umi.*
13169. *Meiran.*
13170. *Kuma-funjin.*
13171. *Taiheiraku.*
13172. *Hana-aoi.*
13173. *Uchiu.*
13174. *Osho-kun.*
13175. *Shippo.*
13176. *Kumo-isho.*
13177. *Kiji-no-megumi.*
13178. *Kumo-no-uye.*
13179. *Yezo-nishiki.*
13180. *Shishi-ikari.*
13181. *Oniga-shima.*
13182. *Sano-watashi.*
13183. *Yedo-jiman.*
13184. *Senjo-no-hora.*
13185. *O-torige.*
13186. *Shirataki.*
13187. *Shiga-no-uranami.*
13188. *Kagaribi.*
13189. *Kosui-no-iro.*
13190. *Komochi-guma.*
13191. *Kakujakuro.*
13192. *Momiji-no-taki.*
13193. *Shichiukwa.*
13194. *Yedo-kagami.*
13195. *Uji-no-hotaru.*
13196. *Shimoyo-no-tanki.*
13197. *Tsurugi-no-mai.*
13198. *Iso-no-nami.*
13199. *Oyodo.*
13200. *Bandai-no-nami.*
13201. *Wakamurasaki.*
13202. *Kyodaisan.*
13203. *Kigan-no-misao.*
13204. *Koki-no-iro.*
13205. *Samidare.*
13206. *Tora odori.*
13207. *Tsuru-no-kegoromo.*
13208. *Datedogu.*
13209. *Ayase-gawa.*
13210. *Ho-dai.*
13211. *Nishiki-hitone.*
13212. *Riubi.*
13213. *Renjo-no-tama.*
13214. *Yomo-zakura.*
13215. *Shiye-no-yuki.*
13216. *Asa-kagura.*
13217. *Sumida-gawa.*

13159 to 13236—Continued.

13159 to 13226—Continued.

13218. *Tsutsu-izutsu.*
13219. *Rinpo.*
13220. *Chitose-dsuru.*
13221. *Risho-no-tama.*
13222. *Kasu-gano.*
13223. *Asa-gasumi.*
13224. *Fuki-yose.*
13225. *Goko-no-asobi.*
13226. *Yamato-zukasa.*

13227 to 13235. Iris spp. **Iris.**

13227. Iris albo-purpurea.
13228. Iris albo-purpurea.
13229. Iris raphiolepis.
13230. Iris raphiolepis variegata.
13231. Iris gracilipes.
13232. Iris sibirica.
13233. Iris laevigata.
13234. Iris laevigata semperflorens.
13235. Iris laevigata alba.

13236. Belamcanda punctata.

13237. Medicago sativa. **Alfalfa.**

From Chinook, Mont. Received thru the Thomas O'Hanlon Company, March 30, 1905. Grown by George Davidson, near Chinook, in Milk River Valley, under irrigation.

13238 to 13240.

From Lourenço Marquez, Portuguese East Africa. Presented by Hon. W. Stanley Hollis, United States consul. Received March 27, 1905.

13238. Gossypium sp. **Cotton.**

"Native East African cotton seed, which was got for me from the slopes of the Lebombo Mountains by the Bishop of Lebombo." (*Hollis.*)

13239. Carissa arduina. **Amatungulu.**

"The 'Martingula,' which is highly esteemed here for eating fresh, as well as for making preserves." (*Hollis.*)

13240. (Undetermined.)

"I have to report that William F. Upshur, esq., of Barrene, Inhambane, has been good enough to furnish me with a small quantity of specimens of a new tree oil seed that is being exploited in the Inhambane district. In Inhambane these oil seeds are called 'Maferera'; in Mozambique, where they grow wild in great profusion, they are called 'Umtizi'; and in Lourenço Marquez, where they are eaten by the natives, they are called 'Umgushu.'" (*Hollis.*)

13241. Ulex europaeus. **Gorse, whin, or furze.**

From Dublin, Ireland. Received thru Hogg & Robertson, March 29, 1905.

13242. Cotoneaster angustifolia.

From Orleans, France. Received thru M. Léon Chénault, Route d'Olivet, 79, March 27, 1905.

13243 to 13255. Rosa sp. **Rose.**

From Worcester, England. Received thru Richard Smith & Co., March 30, 1905.

13243. *Madam George Bruant.*
13244. *Rugosa Alba.*
13245. *Rugosa, fl. pl.*
13246. *Madam Charles Worth.*
13247. *Rugosa Compte D'Empresnel.*

13243 to 13255—Continued.

13248. *Rugosa Rosea.*
13249. *Rugosa Rubra.*
13250. *Austrian Copper.*
13251. *Austrian Yellow.*
13252. *Harisoni.*
13253. *Persian Yellow.*
13254. *Souv. de Pierre Notting.*
13255. *Marechal Niel.*

13256. ZEA MAYS. **Corn.**

From North Pomfret, Vt. Received thru Mr. S. Hewitt, February, 1905.

Malakof. Grown from S. P. I. Nos. 12562 and 12563.

13257. OLEA EUROPAEA. **Olive.**

From Mustapha, Algeria, North Africa. Presented by Dr. L. Trabut. Received March 30, 1905.

Grosse Aberkan. Cuttings.

13258. NEPHELIUM LAPPACEUM. **Rambutan.**

From Buitenzorg, Java. Presented by Doctor Treub. Received March 31, 1905.

13259. MEDICAGO SATIVA. **Alfalfa.**

From Milburn, Nebr. Received thru Mr. C. A. Snyder, April 1, 1905.

Seed grown in 1904 on Sec. 13, T. 20, R. 21, Custer County, Nebr., without irrigation, where it is 240 feet to water.

13260 to 13262. ZEA MAYS. **Rice popcorn.**

From Sao Paulo, Brazil. Presented by Prof. A. Lofgren, Horto Botanico. Received March 25, 1905.

13260. *White.*
13261. *Amber.*
13262. *Red.*

13263 to 13265.

From Yokohama, Japan. Received thru Yokohama Nursery Company, April 3, 1905.

13263. CITRUS sp. **Orange.**

Natsu daidai. (See S. P. I. No. 8903.)

13264. JUNCUS EFFUSUS. **Matting rush.**

13265. SCIRPUS TRIQUETER.

13266 to 13285.

From Sultepec, Mexico. Presented by Mr. Federico Chisolm, Hacienda "Cabajal." Received March 28, 1905.

A collection of unidentified plants.

13286 to 13290.

From Philadelphia, Pa. Received thru Henry A. Dreer, Incorporated, April 3, 1905.

Flower seeds for growing seed.

13291. MEDICAGO SATIVA. **Alfalfa.**

From Fayetteville, N. Y. Received thru Mr. F. E. Dawley, April 1, 1905.

13292. PERSEA GRATISSIMA. **Avocado.**

From Coban, Guatemala. Received thru Mr. G. N. Collins and Mr. C. B. Doyle, March, 1905.

"This thick-skinned type of avocado is very distinct from the varieties commonly found on the markets and from those grown in Florida, the West Indies, and Mexico. It is believed that they will stand shipping much better than the thinner-skinned sorts, and as the quality is fine they should be a valuable acquisition for Porto Rico and Hawaii." (*Collins.*)

13293 to 13297. CALADIUM ESCULENTUM. **Taro.**

From Magnolia, N. C. Received thru the Newberry Bulb Company, March 30, 1905.

13298. PUNICA GRANATUM. **Pomegranate.**

Received March 29, 1905, without advices, thru the Georgetown custom-house. Arrived in New York via steamship *Umbria.*

13299. STUARTIA PENTAGYNA.

From Morrisville, Pa. Received thru Mr. S. C. Moon, April 4, 1905.

13300 to 13303. PHALARIS CANARIENSIS. **Canary grass.**

From Marseille, France. Received thru Hon. Robert P. Skinner, United States consul-general, April 5, 1904.

13300. Cleaned seed from Rodosto, Turkey.

13301. Cleaned seed from Plata, Argentina.

13302. Ordinary seed from Rodosto, Turkey.

13303. Ordinary seed from Plata, Argentina.

"The exporters of canary seed (*Phalaris canariensis*) of Marseille handle only the imported grades, the best of which reach this city from Rodosto (Turkey). The Rodosto seed is richest and has scarcely any grain. The Plata seed has at times a better aspect than the Rodosto seed, but is much lighter, contains straw in excessive quantities, and the kernels are generally decorticated." (*Skinner.*)

13304 and 13305.

From Mustapha, Algeria. Presented by Dr. L. Trabut, government botanist. Received April 7, 1905.

13304. SAPINDUS UTILIS. **Soapberry.**

13305. NARCISSUS PACHYBOLBUS. **Narcissus.**

A vigorous species from western Algeria and Morocco, having 40 or 50 small flowers in clusters. Doctor Trabut thinks this will be interesting to cross with large-flowered varieties.

13306 to 13312. LATHYRUS ODORATUS. **Sweet pea.**

From Algiers, Algeria. Presented by Mr. Arkwright F. Telemly. Received April 7, 1905.

Early-maturing sweet peas, as follows:

13306. Blue and red.

13307. Blue.

13308. Rose and white.

13309. Lilac.

13310. Purple and bronze.

13311. Purple.

13312. Red.

13313 to 13315. CHRYSANTHEMUM LEUCANTHEMUM hyb. **Shasta daisy.**

From Santa Rosa, Cal. Received thru Mr. Luther Burbank, April 7, 1905.

13313. *California.*
13314. *Westralia.*
13315. *Alaska.*

13316 to 13318.

From Lawrence, Kans. Received thru F. Barteldes & Co., April 7, 1905.

13316. ANDROPOGON SORGHUM. **Sorghum.**

Amber.

13317. ANDROPOGON SORGHUM. **Kafir corn.**

White.

13318. ANDROPOGON SORGHUM. **Kafir corn.**

Red.

13319. ASPARAGUS DUCHESNII.

From Brussels, Belgium. Received thru Mr. H. Schuster, 66 Rue du Luxembourg, April 8, 1905.

13320 to 13337. ROSA sp. **Rose.**

From Newtownards, County Down, Ireland. Received thru Alex. Dickson & Sons (Limited), Royal Irish Nurseries, April 8, 1905.

13320. *Dean Hole.*
13321. *Dr. J. Campbell.*
13322. *Hugh Watson.*
13323. *Lady Ashtown.*
13324. *Mrs. Conway Jones.*
13325. *Rev. David Williamson.*
13326. *Irish Engineer.*
13327. *Irish Harmony.*
13328. *Perle des Jannes.*
13329. *Baron Lade.*
13330. *Annie Marie Soupert.*
13331. *George Laine Paul.*
13332. *Le Progrès.*
13333. *Rugosa Delicata.*
13334. *Souv. de Pierre Leperdrieux.*
13335. *Schnechlecht.*
13336. *Andenkah Job Diering.*
13337. *Mme. Jean Dupuy.*

13338. MANGIFERA INDICA. **Mango.**

From Lucknow, India. Received from the Royal Botanical Gardens, thru Mr. Robert Anderson, Lansdowne, Pa., April 11, 1905.

Bombay.

13339. LOLIUM ITALICUM. **Italian rye-grass.**

From New York, N. Y. Received thru J. M. Thorburn & Co., April 8, 1905.

13340. MECONOPSIS INTEGRIFOLIA. **Tibetan poppy.**

From Chelsea, England. Received thru James Veitch & Sons (Limited), August 14, 1905.

"English saved seed. A hardy yellow-flowered poppy from Tibet; hardy, biennial. The plant thrives on the north side of a hedge or wall and grows and flowers freely in open borders. The soil should be open and friable, with a large proportion of peat and sand. Good drainage and ample moisture are required. The seed germinates freely either in a cold frame or out of doors in a few weeks from the time of sowing. Any attempt at any time to protect the plants is quite fatal." (*Veitch & Sons.*)

13341 to 13345. CUCUMIS MELO. **Muskmelon.**

From Detroit, Mich. Received thru D. M. Ferry & Co., April 8, 1905.

13341. *Osage.*
13342. *Defender.*
13343. *Bay View.*
13344. *Baltimore.*
13345. *Emerald Gem.*

13346. HORDEUM DISTICHUM NUTANS. **Two-row barley.**

From Jena, Germany. Received from Doctor Broili, thru the Wahl-Henius Institute of Fermentology, Chicago, Ill., April 10, 1905.

Frankish Brewing. Presumably a high-grade pedigreed sort.

13347. BERBERIS sp. **Barberry.**

From Gloucester, Mass. Received thru Mr. R. P. Ireland, April 13, 1905.

13348. MANGIFERA INDICA. **Mango.**

From Seharunpur, India. Received thru Mr. W. Gollan, superintendent of the Government Botanical Gardens, April 13, 1905.

Bombay Yellow. Plants.

13349. GARCINIA XANTHOCHYMUS.

From Honolulu, Hawaii. Presented by Mr. Gerrit P. Wilder, April 13, 1905.

13350. OPUNTIA FICUS-INDICA (?). **Prickly pear.**

From Nice, France. Presented by Dr. A. Robertson-Proschowsky. Received April 10, 1905.

"Cuttings of a seedling cactus grown by Doctor Proschowsky from seeds received probably from Mexico. This variety has never been fruited, but is so nearly spineless that it may be of interest as a forage plant." (*Fairchild.*)

13351 to 13353. **Barberry.**

From Ottawa, Canada. Presented by Prof. William Saunders, director of the Central Experimental Farm. Received April 10, 1905.

13351. BERBERIS AMURENSIS.
13352. BERBERIS SINENSIS.
13353. BERBERIS SIEBOLDI.

13354. ZEA MAYS. **Popcorn.**

From Karachi, India. Presented by Mr. I. L. F. Beaumont, of the Municipal Gardens and Farm Committee. Received April 10, 1905.

13355. CUCUMIS MELO. **Muskmelon.**

From Lakin, Kans. Received thru Mr. William Logan, January 26, 1905.

Rocky Ford.

13356. VICIA SATIVA. **Common vetch.**

From New Era, Oreg. Received thru Mr. Henry Gilbrich, April, 1905.

White. Said to have been bred by selection from the common type.

13357. ZEA MAYS. **Sweet corn.**

From Winooski, Vt. Received thru Mr. M. E. Douglass, March 3, 1905.

Malakof. Grown from S. P. I. No. 9449. Second generation. "No other early corn nearer than 1 mile either in 1903 or 1904." (*D. S. Bliss.*)

13358. MEDICAGO SATIVA. **Alfalfa.**

From Agricultural College, N. Dak. Received from the North Dakota Agricultural Experiment Station, thru Mr. C. J. Brand, October 28, 1904.

Grimm.

13359 to 13566.

Seeds transferred April 15, 1905, from the Office of Grass and Forage Plant Investigations to the Office of Seed and Plant Introduction and Distribution.

13359. ANTHOXANTHUM ODORATUM. **Sweet vernal grass.**

From Germany, 1904. (Agrost. 2384). From the Louisiana Purchase Exposition, 1904.

13360. CEPHALARIA TATARICA.

Grown in U. S. D. A. grass garden, 1902. (Agrost. 307.)

13361. CEPHALARIA TATARICA.

Grown in U. S. D. A. grass garden, July, 1904. (Agrost. 307.)

13362 to 13369. CICER ARIETINUM. **Chick-pea.**

13362. Grown at Arlington Farm, 1902. (Agrost. 970–1.)

13363. From Parma, Italy. (Agrost. 2456.)

13364. From Voghera, Italy. (Agrost. 2457.)

13365. From Voghera, Italy. (Agrost. 2458.)

13366. From Avellino, Italy. (Agrost. 2459.)

13367. From Italy. (Agrost. 2460.)

13368. From Italy. (Agrost. 2461.)

13369. From Italy. (Agrost. 2462.)

13370. BROMUS MARGINATUS.

From Seattle, Wash. Received thru Mr. Henry N. Leckenby. (Agrost. 1886.)

13371 to 13376.

Received from Mr. S. W. Mollison, Inspector-General of Agriculture for India.

13371. DOLICHOS BIFLORUS.

Kulthi. From United Provinces of Agra and Oudh, India. (Agrost. 1646.)

13372. DOLICHOS BIFLORUS.

Kulthi. From Bombay Presidency, India. (Agrost. 1647.)

13373. DOLICHOS LABLAB. **Hyacinth bean.**

Popat. From Nagpur, Central Provinces, India, 1903. (Agrost. 1648.)

13374. DOLICHOS LABLAB. **Hyacinth bean.**

Sem. From United Provinces of Agra and Oudh, India, 1903. (Agrost. 1649.)

13375. DOLICHOS LABLAB. **Hyacinth bean.**

Val. From Bombay, India, 1903. (Agrost. 1650.)

13376. DOLICHOS LABLAB. **Hyacinth bean.**

Val. From Bombay, India, 1903. (Agrost. 1651.)

13377. HOLCUS LANATUS. **Velvet grass.**

Received thru the C. H. Lilly Company, Seattle, Wash., 1904. (Agrost. 2094.)

13359 to 13556—Continued.

13378. Lathyrus sativus. **Bitter vetch.**

From Catania, Italy, 1904. From Italian exhibit, Louisiana Purchase Exposition. (Agrost. 2389.)

13379. Lathyrus cicer. **Winter flat pea.**

From Catania, Italy, 1904. From Italian exhibit, Louisiana Purchase Exposition. (Agrost. 2406.)

13380. Phaseolus calcaratus. **Bean.**

From the Alabama Agricultural Experiment Station. (Agrost. 2126.)

13381. Phaseolus calcaratus. **Bean.**

Grown at Arlington Farm, 1903, from S. P. I. No. 6564. (Agrost. 941-1 a 1.)

13382. Phaseolus calcaratus. **Bean.**

A selection grown at Arlington Farm, 1903, from S. P. I. No. 6564. (Agrost. 941-1 c 1.)

13383. Phaseolus calcaratus. **Bean.**

A selection grown at Arlington Farm, 1903, from S. P. I. No. 6564. (Agrost. 941-1 d 1.)

13384. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 969½-1 a 1.) Seeds yellow to light orange.

13385. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 969½-1 b 1.)

13386. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 969½-1 c 1.)

13387. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 969½-1 e 1.)

13388. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 969½-1 f 1.)

13389. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 969½-1 g 1.)

13390. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 969½-1 h 1.)

13391. Phaseolus angularis. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 1190-1.)

13392. Phaseolus sp. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 1191.)

13393. Phaseolus sp. **Bean.**

Special selection with large seeds grown at Arlington Farm, 1903. (Agrost. 1191-1.)

13394. Phaseolus radiatus. **Mung bean.**

Grown at Arlington Farm, 1903. (Agrost. 968.)

13395. Phaseolus radiatus. **Mung bean.**

From Clemson College, S. C., 1903. (Agrost. 1112.)

Newman.

13359 to 13556—Continued.

13396 and 13397.

Received from Mr. S. W. Mollison, Inspector-General of Agriculture in India.

13396. PHASEOLUS RADIATUS. **Mung bean.**

From United Provinces of Agra and Oudh, India, July 8, 1903. (Agrost. 1639.)

13397. PHASEOLUS RADIATUS. **Mung bean.**

From Nagpur, Central Provinces, India, 1903. (Agrost. 1640.)

13398. PHASEOLUS RADIATUS. **Mung bean.**

From Cedartown, Ga., November, 1904. (Agrost. 2130.)

13399 to 13403.

Received from Mr. S. W. Mollison, Inspector-General of Agriculture in India.

13399. PHASEOLUS RADIATUS. **Mung bean.**

Katikha. From United Provinces of Agra and Oudh, India, 1903. (Agrost. 1641.)

13400. PHASEOLUS MAX. **Mung bean.**

Bhadela. From United Provinces of Agra and Oudh, India, 1903. (Agrost. 1642.)

13401. PHASEOLUS MAX. **Mung bean.**

Jathia (?), or *Jettira.* From United Provinces of Agra and Oudh, India, 1903. (Agrost. 1643.)

13402. PHASEOLUS MAX. **Mung bean.**

Udid. From Bombay Presidency, India, 1903. (Agrost. 1644.)

13403. PHASEOLUS MAX. **Mung bean.**

Udid. From Nagpur, Central Provinces, India, July 8, 1903. (Agrost. 1645.)

13404. PHASEOLUS RETUSUS. **Metcalf bean.**

From Silver City, N. Mex., April 28, 1903. (Agrost. 1176.)

13405. PHASEOLUS ANGULARIS. **Bean.**

Grown at Arlington Farm, 1903. (Agrost. 941½.)

13406. VICIA sp. **Vetch.**

From Argentine exhibit, Louisiana Purchase Exposition. (Agrost. 2327.)

13407. VICIA sp. **Vetch.**

From German exhibit, Louisiana Purchase Exposition. (Agrost. 2455.)

13408. VICIA sp. **Vetch.**

Grown at Arlington Farm, 1902. (Agrost. 965; S. P. I. 6553.)

13409. VICIA sp. **Vetch.**

Grown at Arlington Farm, 1902. (Agrost. 942-1.)

13410. VICIA ERVILIA. **Black bitter vetch.**

From Italian exhibit, Louisiana Purchase Exposition, 1904. (Agrost. 2403.)

13411. VICIA FABA. **Horse bean.**

From Naples, Italy, 1904. From Italian exhibit, Louisiana Purchase Exposition. (Agrost. 2415.)

13412. VICIA SATIVA. **Common vetch.**

From Argentine exhibit, Louisiana Purchase Exposition. (Agrost. 2314.)

13413 to 13431. VICIA SATIVA. **Common vetch.**

From Italian exhibit, Louisiana Purchase Exposition.

13413. From Italy. (Agrost. 2388.)

13359 to 13556—Continued.

13413 to 13431—Continued.

13414. From Reggio nell' Emilia, Italy. (Agrost. 2390.)
13415. From Rome, Italy, 1904. (Agrost. 2391.)
13416. From Fabriano, Italy, 1904. (Agrost. 2392.)
13417. From Italy, 1904. (Agrost. 2394.)
13418. From Pistoja, Italy, 1904. (Agrost. 2395.)
13419. From Milan, Italy, 1904. (Agrost. 2398.)
13420. From Italy, 1904. (Agrost. 2399.)
13421. From Fabriano, Italy, 1904. (Agrost. 2400.)
13422. From Fabriano, Italy, 1904. (Agrost. 2402.)
13423. From Potenza, Italy, 1904. (Agrost. 2404.)
13424. From Macerata, Italy, 1904. (Agrost. 2405.)
13425. From Ancona, Italy, 1904. (Agrost. 2408.)
13426. From Ancona, Italy, 1904. (Agrost. 2409.)
13427. From Tursla, Italy, 1904. (Agrost. 2410.)
13428. From Parma, Italy, 1904. (Agrost. 2411.)
13429. From Perugia, Italy, 1904. (Agrost. 2413.)
13430. From Foggia, Italy, 1904. (Agrost. 2414.)
13431. From Italy, 1904. (Agrost. 2432.)

13432. Vicia unijuga (?). **Vetch.**

From Japan, March 18, 1903. (Agrost. 1140.)

13433. Vicia villosa. **Hairy vetch.**

From Argentine exhibit, Louisiana Purchase Exposition. (Agrost. 2317.)

13434. Themeda ciliata.

From Palghar, Thana, India. Received thru Latham & Co., Bombay, India, January 20, 1904.

Bondani, a small kind of "Ful" grass. "One of the best sorts of grasses for grazing." (Agrost. 1787.)

13435. Medicago sativa. **Alfalfa.**

Received from Henry Nungesser & Co., New York, N. Y., April 20, 1904.

Turkestan. (Agrost. 1957.)

13436. Medicago sativa. **Alfalfa.**

Received from Steele, Briggs Seed Co., Toronto, Canada, December 8, 1904. (Agrost. 2131.)

13437. Medicago sativa. **Alfalfa.**

Received from F. Barteldes & Co., Lawrence, Kans., 1904.

Arizona grown. (Agrost. 2518.)

13438. Medicago sativa. **Alfalfa.**

Received from F. Barteldes & Co., Lawrence, Kans., 1904.

Minnesota grown. (Agrost. 2531.)

13439. Medicago sativa. **Alfalfa.**

Kansas grown. (Agrost. 2530.)

13440. Medicago sativa. **Alfalfa.**

Kansas grown. (Agrost. 2531).

13359 to 13556—Continued.

13441. AGROPYRON OCCIDENTALE.

From Hays, Kans. (Agrost. 1942.)

13442. AGROPYRON OCCIDENTALE.

From Harlem, Mont. (Agrost. 1982.)

13443. AGROPYRON OCCIDENTALE.

(Agrost. 1001.)

13444. BROMUS CARINATUS HOOKERIANUS.

From Seattle, Wash. (Agrost. 1887.)

13445. BROMUS CARINATUS HOOKERIANUS.

From Union, Oreg. (Agrost. 2097.)

13446. BROMUS INERMIS. **Smooth brome-grass.**

From Brandon, Mass. Received thru Brandon Seed House. (Agrost. 1996.)

13447. BROMUS MARGINATUS.

From Union, Oreg. (Agrost. 2091.)

13448. BROMUS POLYANTHUS PANICULATUS. (Agrost. 1177.)

13449. CALAMAGROSTIS HYPERBOREA. (Agrost. 841.)

13450. ELYMUS CONDENSATUS. **Giant rye-grass.**

From Union, Oreg. (Agrost. 2092.)

13451. ELYMUS TRITICOIDES. (Agrost. 2096.) **Wild wheat.**

13452. ELYMUS VIRGINICUS SUBMUTICUS.

From Union, Oreg. (Agrost. 1800.)

13453. FESTUCA PRATENSIS. **Meadow fescue.**

From Union, Oreg. (Agrost. 1799.)

13454 to 13477. VIGNA SINENSIS. **Cowpea.**

13454.

Early Black. Grown on Arlington Farm, 1904. Third generation from Agrost. 1233. From McCullough, March, 1902. (Agrost. 1233–3.)

13455.

Large Blackeye. Grown on Arlington Farm, 1904. Third generation from Agrost. 1224. From Alabama Experiment Station, March, 1902. (Agrost. 1224–3.)

13456.

Extra Early Blackeye. Grown on Arlington Farm, 1904. Third generation from Agrost. 1232. From Arkansas Station, March, 1902. Grown there for five years. (Agrost. 1232–3.)

13457.

California Blackeye. Grown on Arlington Farm, 1904. Third generation from Agrost. 1231. From Arkansas Station, March, 1904. (Agrost. 1231–3.)

13458.

Clay. Grown on Arlington Farm, 1904. Third generation from Agrost. 1255. From South Carolina Station, March, 1902. (Agrost. 1255–3.)

13459.

Clay. From T. W. Wood & Sons, April 2, 1904. (Agrost. 1937.)

13460.

Iron. Grown on Arlington Farm, 1904. Third generation from Agrost. 1247. From Mr. W. A. Orton, March, 1902. (Agrost. 1247–3.)

13359 to 13556—Continued.

13454 to 13477—Continued.

13461.

Iron. Grown by Mr. J. P. Dunlap, Dwight, Nebr., from seed of Congressional distribution, presumably from Monetta, S. C. Received from Mr. Dunlap, October, 1904. (Agrost. 2109.)

13462.

Iron. Received from Mr. S. M. Byrd, Cedartown, Ga., January 11, 1905. Grown in 1904 from seed of Congressional distribution, presumably from Monetta, S. C. (Agrost. 2136.)

13463.

Iron. Received from Mr. W. J. Edwards, Willshire, Ohio, March 6, 1905, and from Mr. J. A. Ritchie, Wapakoneta, Ohio, March 20, 1905. Grown from seed of Congressional distribution, presumably from Monetta, S. C. (Agrost. 2217.)

13464.

Iron. Received from four men in central Kentucky and southern Illinois, who grew it in 1904 from seed of Congressional distribution, presumably from Monetta, S. C. (Agrost. 2260.)

13465.

Iron. Received in March, 1905, from Mr. Han Abild, Wakonda, Clay County, S. Dak., who grew it in 1904 from seed of Congressional distribution, presumably from Monetta, S. C. (Agrost. 2310.)

13466.

Iron. Received from Mr. Charles G. Diament, Bridgeton, N. J., March 8, 1905. Grown from seed of Congressional distribution, presumably from Monetta, S. C. (Agrost. 2386.)

13467.

Iron. Received from G. C. Dulebohn, Kearney, Kans., March, 1905. Grown from seed of Congressional distribution, presumably from Monetta, S. C. (Agrost. 2387.)

13468.

Wonderful. Grown on Arlington Farm, 1904. From Texas Seed and Floral Company, Dallas, Tex., March, 1902. (Agrost. 1251–3.)

13469.

Wonderful. From T. W. Wood & Sons, Richmond, Va., April 2, 1904. (Agrost. 1938.)

13470.

Warren's Extra Early. Grown on Arlington Farm, 1904. Obtained in March, 1902, from Arkansas station, where it was grown for four years, and changed materially in size, color, and shape from the original seed procured from Maule, of Philadelphia. (Agrost. 1218–3.)

13471.

Warren's New Hybrid. Grown on Arlington Farm, 1904. From Louisiana station, March, 1902. (Agrost. 1288–3.)

13472.

Michigan Favorite. From Mr. E. E. Evans, Westbranch, Mich., May 13, 1904. (Agrost. 1991.)

13473.

Michigan Favorite. Grown on Arlington Farm, 1904. From Mr. E. E. Evans, Westbranch, Mich., May 13, 1904. (Agrost. 1991–1.)

13474.

Michigan Favorite. Received in March, 1905, from Mr. Han Abild, Wakonda, Clay County, S. Dak. Grown from seed of Congressional distribution, presumably from Monetta, S. C. (Agrost. 2309.)

13359 to 13556—Continued.

13454 to 13477—Continued.

13475.

Whippoorwill. Grown on Arlington Farm, 1904. From T. W. Wood & Sons, Richmond, Va., March, 1902. (Agrost. 1269–2.)

13476.

Taylor. Grown on Arlington Farm, 1904. From Alabama Station, March, 1902. (Agrost. 1248–3.)

13477.

New Era. Grown on Arlington Farm, 1904. From T. W. Wood & Sons, Richmond, Va., April 2, 1904. (Agrost. 1936–1.)

13478 to 13487. MEDICAGO SATIVA. **Alfalfa.**

13478.

Received from F. Barteldes & Co., Lawrence, Kans., April 22, 1904. (Agrost. 1968.)

13479.

Grown in Arizona. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1904. (Agrost. 1958.)

13480.

Grown in Meade County, Kans. Received from F. Barteldes & Co., Lawrence, Kans., April 22, 1904. (Agrost. 1970.)

13481.

Grown in Italy. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1906. (Agrost. 1956.)

13482.

Grown in France. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1904. (Agrost. 1955.)

13483.

Grown in Utah. Received from C. A. Smurthwaite Produce Company, Ogden, Utah, April 25, 1904. (Agrost. 1983.)

13484.

Grown in Colorado. Received from F. Barteldes & Co., Lawrence, Kans., April 20, 1904. (Agrost. 1967.)

13485.

Grown in Kansas. Received from F. Barteldes & Co., Lawrence, Kans., April 20, 1904. (Agrost. 1969.)

13486.

Grown in Utah. (Agrost. 2532.)

13487.

Grown in Texas. (Agrost. 2533.)

13488. MEDICAGO MEDIA. **Sand lucern.**

Grown in Wisconsin. (Agrost. 2534.)

13489. MEDICAGO SATIVA. **Alfalfa.**

Grown in Wyoming. Received from the A. Dickinson Company, Chicago, Ill., 1903. (Agrost. 1885.)

13490. TRIFOLIUM PRATENSE. **Red clover.**

Received from T. W. Wood & Sons, Richmond, Va., April 18, 1904. (Agrost. 1952.)

13359 to 13556—Continued.

13491. Trifolium incarnatum. **Crimson clover.**

White Blooming. Received from T. W. Wood & Son, Richmond, Va., April 18, 1904. (Agrost. 1953.)

13492. Trifolium incarnatum. **Crimson clover.**

Grown in Moravia. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1904. (Agrost. 1964.)

13493. Trifolium incarnatum. **Crimson clover.**

Grown in France. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1904. (Agrost. 1961.)

13494. Trifolium incarnatum. **Crimson clover.**

Grown in Italy. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1904. (Agrost. 1962.)

13495. Trifolium pratense. **Red clover.**

Received from F. Barteldes & Co., Lawrence, Kans., April 22, 1904. (Agrost. 1955.)

13496. Trifolium pratense. **Red clover.**

Grown in Barry County, Mo. Received from F. Barteldes & Co., Lawrence, Kans., April 22, 1904. (Agrost. 1966.)

13497. Trifolium incarnatum. **Crimson clover.**

Grown in England. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1903. (Agrost. 1963.)

13498. Trifolium pratense. **Red clover.**

Grown in Russia. Received from Henry Nungesser & Co., New York, N. Y., April 20, 1903. (Agrost. 1960.)

13499. Trifolium pratense. **Red clover.**

Received from T. W. Wood & Sons, Richmond, Va., February 19, 1903. (Agrost. 1113.)

13500. Trifolium alexandrinum. **Berseem.**

Grown in Egypt. Received from Henry Nungesser & Co , New York, N. Y., April 20, 1904. (Agrost. 1959.)

13501. Trifolium hybridum. **Alsike.**

(Agrost. 891.)

13502. Glycine hispida. **Soy bean.**

Ogema. Received from Mr. Edward E. Evans, West Branch, Mich., May, 1904. (Agrost. 1992.)

13503. Glycine hispida. **Soy bean.**

Grown at Arlington Farm, 1904. (Agrost. 912–3.)

13504. Agropyron occidentale.

Received from Thomas Everett, Harlem, Mont., April, 1905.

13505. Bromus marginatus.

Collected by Mr. J. S. Cotton, in the Wenache Mountains, Washington, in 1904. (Agrost. 2098.)

13506. Trifolium pratense. **Red clover.**

Grown at Gap, French Alps, France. (Agrost. 2218.)

13507. Trifolium pratense. **Red clover.**

Grown at Mysoke, Myto, Bohemia. (Agrost. 2219.)

13508. Trifolium pratense. **Red clover.**

Grown at Neu Bydzow, Bohemia. (Agrost. 2220.)

13359 to 13556—Continued.

13509. Trifolium pratense. **Red clover.**

Zelenac. Grown at Neu Bydzow, Bohemia. (Agrost. 2221.)

13510. Trifolium hybridum. **Alsike.**

Grown at Neu Bydzow, Bohemia. (Agrost. 2222.)

13511. Trifolium repens. **White clover**

Grown at Alt Bydzow, Bohemia. (Agrost. 2223.)

13512. Trifolium repens. **White clover.**

Grown at Podolia, Russia. (Agrost. 2224.)

13513. Trifolium pratense. **Red clover.**

Grown at Goteborg, Sweden. (Agrost. 2225.)

13514. Trifolium hybridum. **Alsike.**

Grown at Goteborg, Sweden. (Agrost. 2226.)

13515. Trifolium pratense. **Red clover.**

Grown in Chile. (Agrost. 2227.)

13516. Trifolium pratense. **Red clover.**

Grown at Gelderland, Holland. (Agrost. 2228.)

13517. Trifolium pratense. **Red clover.**

Grown at Brabant, Holland. (Agrost. 2229.)

13518. Trifolium repens. **White clover.**

Grown near Arnheim, Holland. (Agrost. 2230.)

13519. Medicago sativa. **Alfalfa.**

Grown at Saragossa, Spain. (Agrost. 2231.)

13520. Medicago sativa. **Alfalfa.**

Grown at Pfalz, Palatinate, Germany. (Agrost. 2232.)

13521. Medicago sativa. **Alfalfa.**

Grown in Oran Province, Algeria. (Agrost. 2233.)

13522. Trifolium pratense. **Red clover.**

Grown at Toulouse, Garonne, France. (Agrost. 2234.)

13523. Trifolium pratense. **Red clover.**

Grown at Charente-Inferieure, Poitou, France. (Agrost. 2235.)

13524. Trifolium pratense. **Red clover.**

Grown at Nantes, Anjou, France. (Agrost. 2236.)

13525. Trifolium pratense. **Red clover.**

Grown at Troyes, Champagne, France. (Agrost. 2237.)

13526. Trifolium pratense. **Red clover.**

Grown at St. Malo, Bretagne, France. (Agrost. 2238.)

13527. Trifolium pratense. **Red clover.**

Grown at Albeville, Picardy, France. (Agrost. 2239.)

13528. Trifolium alexandrinum. **Berseem.**

Grown at Alexandria, Egypt. (Agrost. 2240.)

13529. Trifolium repens. **White clover.**

Grown at Milan, Lodi, Italy. (Agrost. 2241.)

13530. Trifolium repens. **White clover.**

Grown at Lorraine, France. (Agrost. 2242.)

13359 to 13556—Continued.

13531. Trifolium repens. **White clover.**

Grown at Lorraine, France. (Agrost. 2243.)

13532. Trifolium filiforme.

Grown at Poitiers, France. (Agrost. 2244.)

13533. Trifolium fragiferum.

Grown at Paris, France. (Agrost. 2245.)

13534. Trifolium hybridum. **Alsike.**

Grown at Beauce, France. (Agrost. 2246.)

13535. Trifolium hybridum. **Alsike.**

Grown at Champagne, France. (Agrost. 2247.)

13536. Trifolium pannonicum. **Hungarian clover.**

Grown at Paris, France. (Agrost. 2248.)

13537. Trifolium incarnatum. **Crimson clover.**

Grown at Poitou, France. (Agrost. 2249.)

13538. Trifolium incarnatum. **Crimson clover.**

Grown at Beauce, France. (Agrost. 2250.)

13539. Trifolium incarnatum. **Crimson clover.**

Grown at Beauce, France. (Agrost. 2251.)

13540. Trifolium incarnatum. **Crimson clover.**

Grown at Beauce, France. (Agrost. 2252.)

13541. Medicago sativa. **Alfalfa.**

Grown at Gard, France. (Agrost. 2253.)

13542. Medicago sativa. **Alfalfa.**

Grown at Orange, Provence, France. (Agrost. 2254.)

13543. Medicago sativa. **Alfalfa.**

Grown at Charente, Poitou, France. (Agrost. 2255.)

13544. Medicago sativa. **Alfalfa.**

Grown at Anjou, Pays, France. (Agrost. 2256.)

13545. Medicago sativa. **Alfalfa.**

Grown at Nord, France. (Agrost. 2257.)

13546. Medicago sativa. **Alfalfa.**

From Turkestan, Asia. (Agrost. 2258.)

13547. Medicago sativa. **Alfalfa.**

Grown at Bologna, Italy. (Agrost. 2525.)

13548. Trifolium pratense. **Red clover.**

Grown at Warwickshire, England. (Agrost. 2526.)

13549. Trifolium pratense. **Red clover.**

Grown at Hampshire, England. (Agrost. 2527.)

13550. Trifolium repens. **White clover.**

Grown at Norfolkshire, England. (Agrost. 2528.)

13551. Trifolium hybridum. **Alsike.**

Grown at Cambridge, England. (Agrost. 2529.)

13552. Medicago denticulata. **Bur clover.**

From T. W. Wood & Sons, Richmond, Va., March 16, 1903. (Agrost. 1129.)

13359 to 13556—Continued.

13553. Atriplex bracteosa.

From Phoenix, Ariz. Collected by Dr. D. Griffiths, October 16, 1903. (Agrost. 1824.)

13554. Atriplex bracteosa.

From Tucson, Ariz. Collected by Dr. D. Griffiths, October 11, 1903. (Agrost. 1825.)

13555. Atriplex bracteosa.

From San Rita Mountains, Arizona. Collected by Dr. D. Griffiths, October 10, 1903. (Agrost. 1826.)

13556. Atriplex confertifolia.

Collected by Dr. D. Griffiths, 1903. From valley of the Little Colorado, Arizona. (Agrost. 1828.)

13557. Atriplex bracteosa.

From Santa Rita Mountains, Arizona. Collected by Dr. D. Griffiths, May 23, 1903. (Agrost. 1827.)

13558. Melilotus sulcata.

From Algeria, October, 1903. (Agrost. 1161.)

13559. Melilotus speciosa.

From Shao-king, Chehkiang Province, China. Received February 12, 1904. Presented by Mr. Cyril E. Bomfield.

"The Chinese mainly use its heavy, rank growth for fertilizing the soil previous to sowing rice." (Agrost. 1866.)

13560. Trifolium longipes. **Mountain clover.**

From Wenache Mountains, Washington, at altitude of 5,000 feet. Collected by Mr. J. S. Cotton, October, 1904. (Agrost. 2108.)

13561. Medicago sativa. **Alfalfa.**

From A. LeCoq & Co., Darmstadt, Germany, March 28, 1903.

Turkestan. (Agrost. 2208.)

13562. Hordeum bulbosum.

Received June 28, 1904. (Agrost. 263.)

13563. Panicum maximum. **Guinea grass.**

From Barbados, West Indies.

13564. Medicago sativa. **Alfalfa.**

From Mollendo, Peru. Collected by Mr. Enrique Meier in 1903. (Agrost. 2168.)

13565. Andropogon sorghum. **Milo maize.**

Purchased from Mr. W. W. Hutchens, Chillicothe, Tex., in the autumn of 1904. (Agrost. 2090.)

13566. Bouteloua curtipendula. **Side oats.**

Received from Mr. James K. Metcalfe, Silver City, N. Mex., February 26, 1904. (Agrost. 1889.)

13567. Olea europaea. **Olive.**

From Tunis, North Africa. Received from Mr. Louis Fidelle, thru Mr. T. H. Kearney, April 20, 1905.

Chemlali. "This is an olive with very small fruit, very rich in oil, and a heavy yielder, adapted to the driest, hottest region known in which olive culture flourishes, the rainfall at Sfax, in southern Tunis, where it is the only variety grown extensively, averaging about 10 inches yearly, and sometimes falling to 5 or 6 inches as the average for several successive years. Notwithstanding this small rainfall, the orchards are never irrigated at Sfax except during the first two or three summers after planting. In some orchards the cuttings are irrigated only a single time, receiving about 6 gallons each. Extraordinary precautions are taken to preserve the soil moisture near the surface, the olive being a shallow-rooting tree. The trees are planted from 65 to 80 feet apart each way, the wider planting giving seven trees per acre. The ground between is kept entirely clean, not even grain crops being grown after the tree begins to bear. The surface of the soil is always kept in a well-pulverized condition to reduce evaporation. Three or four plowings a year are given, and as many cultivations as are necessary to keep out weeds. Manuring is practised only to a very limited extent. The orchards at Sfax are always created with pieces of wood from the base of very old trees, such as those sent you. The cuttings are generally set out in the fall (but sometimes in the spring) in the bottom of holes that are 2 feet deep and 2 feet square. These are filled up as the tree grows, until in about two years they are entirely filled. It is often the practise to keep a shallow basin, 6 inches or so deep, around the base of the tree during the rainy season (winter), the diameter of the basin being about equal to that of the spread of the foliage. In summer the ground is plowed up to the bases of the trees. The soil around Sfax is a reddish sandy loam to a depth of 2 or 3 feet or more, below which hardpan is often encountered.

"The trees are pruned during the harvest every other year, beginning when 3 years old. The average yields obtained at Sfax from trees respectively 10, 15, 20, and 25 years old appear to be about 2, 6, 10, and 12½ quarts of oil per tree. In good years twice as much is obtained. The percentage of oil in the fruit, as well as the quantity of fruit produced, increases rapidly as the tree grows older." (*Kearney.*)

13568. MUSA SAPIENTUM. **Banana.**

From Gabes, Tunis, North Africa. Received thru Mr. T. H. Kearney, April 20, 1905.

13569. PISTACIA VERA. **Pistache.**

From Caltanisetta, Sicily. Received thru Mr. T. H. Kearney, from Signor Deleo, April 20, 1904.

Trabonella.

13570. ZEA MAYS. **Sweet corn.**

From Riverside Farm, Nashua, N. H. Received April 17, 1905.

Crosby. Said to be the result of eighteen years' selection.

13571. NEPHELIUM LAPPACEUM. **Rambutan.**

From Buitenzorg, Java. Received thru Doctor Treub, April 22, 1905.

Native of south India and Malay Islands, and furnishes a fruit similar to the Litchi, namely, the Rambutan or Ramboostan fruit. All species of Nephelium seem to require rather a moist, mild, forest clime than great atmospheric heat.

The fruit is of a bright-red color, about 2 inches long, of an oval form, and slightly flattened, and covered with long, soft, fleshy spines or thick hairs. Like the other Nepheliums it contains a pleasant acidulous pulp very grateful in tropical countries.

13572. GARCINIA MANGOSTANA. **Mangosteen.**

From Buitenzorg, Java. Received thru Doctor Treub, April 17, 1905.

13573. JUGLANS REGIA. **Persian walnut.**

From Kashgar, eastern Turkestan, Asia. Presented by Rev. P. J. P. Hendriks. Received April 11, 1905.

13574. GLYCYRRHIZA GLABRA. **Licorice.**

From London, England. Received thru Messrs. Barr & Sons, April 17, 1905.

13575. ALTHAEA ROSEA. **Hollyhock.**

From New York, N. Y. Received from Henry & Lee, importers, March, 1905.

Japanese.

13576 to 13582.

From Christiania, Norway. Presented by Mr. C. Doxrud, thru Miss Carrie Harrison, of this Department. Received April 13, 1905.

13576. AVENA SATIVA. **Oat.**

White. Cultivated in 1898 under the Arctic Circle.

13577. AVENA SATIVA. **Oat.**

Black. Cultivated at northern latitude of 64°.

13578. HORDEUM VULGARE (?). **Barley.**

Cultivated in 1898 under the Arctic Circle.

13579. PISUM SATIVUM. **Pea.**

Cultivated at northern latitude of 63½°.

13580. PHLEUM PRATENSE. **Timothy.**

Cultivated at northern latitude of 63½°.

13581. TRIFOLIUM PRATENSE. **Red clover.**

Cultivated at northern latitude of 63½°.

13582. VICIA sp. **Vetch.**

Cultivated at northern latitude of 63½°.

"We are informed that these seeds have been collected within the Arctic Circle, and it is probable that they represent very short-seasoned types, which are likely to be of unusual value in northern Alaska and possibly in portions of our Northern States." (*Fairchild.*)

13583 to 13585. GOSSYPIUM sp. **Cotton.**

From Peru. Received thru W. R. Grace & Co., New York, N. Y., April 19, 1905.

13583. *Vitarte.*

Smooth cotton seed from Vitarte; represents the seed of cotton grown in the valleys of Peru. This cotton is similar to Egyptian and is known as "*Egypto*" cotton. It is used by the various cotton mills in this country in the manufacture of "domestics." The surplus is shipped to Liverpool, where it finds a market at a price a little over American cotton, say 0.40d. per pound. There is one crop of this cotton every year, the same as with American cotton. The seed is planted in September or October and the cotton is gathered in May or August the following year. The annual crop is about 7,500,000 pounds.

13584. *Palpa.* **13585.** *Nazca.*

Palpa, *Nazca*, and *Ica* (No. 14801) represent seed of Peruvian cotton grown in these different places, which are in the southern part of Peru. Here the crop is twice a year, same seasons as the "Full rough." Crop varies from 6,000 bales (of 100 pounds) in a dry year to 15,000 bales in a good year. The cotton seed of the "Full rough" (No. 12938) and "Moderate rough" (*Palpa*, *Nazca*, and *Ica*) is exported to England, while the seed of the "*Egypto*" is prest here and the cotton-seed cake, known as "Pasta," is shipped to Liverpool. The oil is sold here chiefly for use in mines, and portions of it as Italian salad oil.

13586. PHALARIS CANARIENSIS. **Canary grass.**

From Patras, Greece. Presented by Mr. S. Xanthopoulo, of the Station Agricole. Received April 19, 1905.

In his letter of April 1, Mr. Xanthopoulo stated that this seed was procured by him from Turkey.

13587 to 13599.

From Chelsea, England. Received thru James Veitch & Sons, March 28, 1905.

Flower seeds.

13600 to 13620.

From Reading, England. Received thru Sutton & Sons, about March 3, 1905.

Flower seeds.

13621 and 13622. **Matting rush.**

From Tokyo, Japan. Presented by Prof. J. Matsumura, Imperial University. Received April 24, 1905.

13621. JUNCUS EFFUSUS DECIPIENS. **13622.** JUNCUS SETCHUENSIS EFFUSOIDES.

13623 to 13636.

From London, England. Received thru Barr & Sons, Covent Garden, March 8, 1905.

Flower seeds.

13637 to 13647.

From New York, N. Y. Received thru J. M. Thorburn & Co., about February 17, 1905.

Flowering perennials.

13648. MEDICAGO CANCELLATA.

From Rostoff on Don, Russia. Received from Mr. George R. Martin, thru the American consular agency, September 21, 1905.

13649 to 13663.

From Erfurt, Germany. Received thru Mr. Ernst Benary, March 16, 1905.

Flower seeds.

13664 to 13693.

From Paris, France. Received thru Vilmorin-Andrieux & Co., March 3, 1905.

Flower seeds.

13694 and 13695.

From Marblehead, Mass. Received thru James J. H. Gregory & Son, February 27, 1905.

Flower seeds.

13696 to 13698.

From Philadelphia, Pa. Received thru Henry A. Dreer, Incorporated, in the spring of 1905.

Flower seeds.

13699 to 13703.

From Naples, Italy. Received thru Mr. Max Herb, in the spring of 1905.

Flower seeds.

13704. RUDBECKIA SPECIOSA BICOLOR.

From Philadelphia, Pa. Received thru W. A. Burpee & Co., February 17, 1905.

13705 to 13707.

From Boston, Mass. Received thru W. W. Rawson & Co., 12 Faneuil Hall Square, about February 15, 1905.

Flower seeds.

13708 to 13711.

From Boston, Mass. Received thru R. & J. Farquhar & Co., in January, 1905.

Flower seeds.

13712 to 13714.

From Ottawa, Ontario, Canada. Presented by Mr. J. B. Lewis, C. E., 126 Sparks street. Received February 21, 1905.

Flower seeds.

13715 to 13718.

From Erfurt, Germany. Received thru Mr. F. C. Heinemann, in the spring of 1905.

Flower seeds.

13719 to 13721.

From Erfurt, Germany. Received thru Haage & Schmidt, in the spring of 1905.

Flower seeds.

13722 and 13723. AQUILEGIA sp. **Columbine.**

From Wordsley, Stourbridge, England. Received thru Webb & Sons, in the spring of 1905.

13724. PAPAVER ORIENTALE hyb. **Poppy.**

From Boston, England. Received thru W. W. Johnson & Co., March 7, 1905.

13725 to 13727.

(Origin and date of receipt uncertain.)

Flower seeds.

13728. LANSIUM DOMESTICUM. **Doekoe.**

From Buitenzorg, Java. Presented by Doctor Treub. Received April 29 and May 4, 1905.

13729 to 13731. PERSEA GRATISSIMA. **Avocado.**

From Miami, Fla. Presented by Mr. George B. Cellon to the Subtropical Laboratory thru Mr. S. B. Bliss. Received April 12, 1905.

13729. *Baldwin.*

13730. *Haden.*

13731. *Rico.*

13732. MORAEA IRIDIOIDES.

From Cape Town, South Africa. Presented by Prof. P. MacOwan, Department of Agriculture. Received April 24, 1905.

A native South African plant, growing 2½ feet high; flowers iris-like.

13733 to 13794.

Seeds transferred from the Office of Grass and Forage Plant Investigations to the Office of Seed and Plant Introduction and Distribution, May 1, 1905.

13733 to 13771.

From the Louisiana Purchase Exposition.

13733. BRASSICA NAPUS. **Rape.**

From Milan, Italy. (Agrost. 2476.)

13733 to 13794—Continued.

13733 to 13771—Continued.

13734. TRIFOLIUM PRATENSE. **Red clover.**

From Voghera, Italy. (Agrost. 2477.)

13735. TRIFOLIUM PRATENSE. **Red clover.**

From Padova, Italy. (Agrost. 2478.)

13736. TRIFOLIUM PRATENSE. **Red clover.**

From Asti, Italy. (Agrost. 2479.)

13737. TRIFOLIUM PRATENSE. **Red clover.**

From Lodi, Italy. (Agrost. 2480.)

13738. MEDICAGO SATIVA. **Alfalfa.**

From Milan, Italy. (Agrost. 2481.)

13739. MEDICAGO SATIVA. **Alfalfa.**

From Padova, Italy. (Agrost. 2482.)

13740. TRIFOLIUM PRATENSE. **Red clover.**

From Lorino, Italy. (Agrost. 2483.)

13741. TRIFOLIUM PRATENSE. **Red clover.**

From Aguila, Italy. (Agrost. 2484.)

13742. MEDICAGO LUPULINA. **Yellow trefoil.**

From Como, Italy. (Agrost. 2485.)

13743. MEDICAGO SATIVA. **Alfalfa.**

From Treviso, Italy. (Agrost. 2486.)

13744. MEDICAGO SATIVA. **Alfalfa.**

From Parma, Italy. (Agrost. 2487.)

13745. MEDICAGO SATIVA. **Alfalfa.**

From Triora, Italy. (Agrost. 2488.)

13746. TRIFOLIUM PRATENSE. **Red clover.**

From Triora, Italy. (Agrost. 2489.)

13747. TRIFOLIUM PRATENSE. **Red clover.**

From Verona, Italy. (Agrost. 2490.)

13748. TRIFOLIUM PRATENSE. **Red clover.**

From Pesaro, Italy. (Agrost. 2491.)

13749. TRIFOLIUM PRATENSE. **Red clover.**

From Pairo, Italy. (Agrost. 2492.)

13750. LOTUS CORNICULATUS. **Bird's-foot trefoil.**

From Genoa, Italy. (Agrost. 2493.)

13751. MEDICAGO LUPULINA. **Yellow trefoil.**

From Treviso, Italy. (Agrost. 2494.)

13752. TRIFOLIUM PRATENSE. **Red clover.**

From Ferrara, Italy. (Agrost. 2495.)

13753. MEDICAGO SATIVA. **Alfalfa.**

From Pisa, Italy. (Agrost. 2496.)

13754. MEDICAGO SATIVA. **Alfalfa.**

From Triora, Italy. (Agrost. 2497.)

13755. MEDICAGO SATIVA. **Alfalfa.**

From Verona, Italy. (Agrost. 2498.)

13733 to 13794—Continued.

13733 to 13771—Continued.

13756. TRIFOLIUM PRATENSE. **Red clover.**

From Treviso, Italy. (Agrost. 2499.)

13757. MEDICAGO SATIVA. **Alfalfa.**

From Milan, Italy. (Agrost. 2500.)

13758. MEDICAGO SATIVA. **Alfalfa.**

From Voghera, Italy. (Agrost. 2501.)

13759. MEDICAGO SATIVA. **Alfalfa.**

From Ales, Italy. (Agrost. 2502.)

13760. TRIFOLIUM PRATENSE. **Red clover.**

(No label.) (Agrost. 2503.)

13761. TRIFOLIUM PRATENSE. **Red clover.**

(No label.) (Agrost. 2504.)

13762. MEDICAGO DENTICULATA. **Bur clover.**

From Argentina. (Agrost. 2505.)

13763. TRIFOLIUM PRATENSE. **Red clover.**

From Argentina. (Agrost. 2506.)

13764. TRIFOLIUM INCARNATUM. **Crimson clover.**

From Argentina. (Agrost. 2507.)

13765. TRIFOLIUM HYBRIDUM. **Alsike.**

From Argentina. (Agrost. 2508.)

13766. TRIFOLIUM PRATENSE. **Red clover.**

From Argentina. (Agrost. 2509.)

13767. MEDICAGO SATIVA. **Alfalfa.**

From Argentina. (Agrost. 2510.)

13768. MEDICAGO SATIVA. **Alfalfa.**

From Argentina. (Agrost. 2511.)

13769. MEDICAGO SATIVA. **Alfalfa.**

From Argentina. (Agrost. 2512.)

13770. TRIFOLIUM PRATENSE. **Red clover.**

From Treviso, Italy. (Agrost. 2513.)

13771. TRIFOLIUM PRATENSE. **Red clover.**

From Italy. (Agrost. 2514.)

13772 to 13775.

From Reading, England. Received from Sutton & Sons, March, 1903.

13772. TRIFOLIUM PRATENSE PERENNE. **Red clover.**

(Agrost. 2156.)

13773. TRIFOLIUM REPENS PERENNE. **White clover.**

(Agrost. 2157.)

13774. TRIFOLIUM PRATENSE. **Red clover.**

(Agrost. 2158.)

13775. TRIFOLIUM HYBRIDUM. **Alsike.**

Sutton's giant hybrid cow clover. (Agrost. 2159.)

13776. TRIFOLIUM PRATENSE. **Red clover.**

From Reading, England, March 20, 1903. (Agrost. 2162.)

13733 to 13794—Continued.

13777. Trifolium repens. **Wild white clover.**

From Dickson, Chester, England, May 5, 1903. (Agrost. 2179.)

13778. Medicago sativa. **Alfalfa.**

From Missouri Seed Company, 1903. (Agrost. 2180.)

13779. Vicia faba. **Broad bean.**

From Naples, Italy. Collected for World's Fair. (Agrost. 2417.)

13780. Vicia faba. **Broad bean.**

From Italy, 1904. (Agrost. 2418.)

13781. Vicia faba. **Broad bean.**

From Caserta, Italy, 1904. Collected for World's Fair. (Agrost. 2419.)

13782. Vicia faba. **Broad bean.**

From Caserta, Italy, 1904. Collected for World's Fair. (Agrost. 2420.)

13783. Vicia faba. **Broad bean.**

From Italy, 1904. (Agrost. 2421.)

13784. Vicia faba. **Horse bean.**

From Caserta, Italy, 1904. Collected for World's Fair. (Agrost. 2422.)

13785. Vicia faba. **Horse bean.**

From Rome, Italy, 1904. Collected for World's Fair. (Agrost. 2423.)

13786. (Unidentified legume.) (Agrost. 2464.)

13787 to 13793. Brassica napus. **Rape.**

From the Louisiana Purchase Exposition. European varieties.

13787.	(Agrost. 2467.)	**13791.**	(Agrost. 2471.)
13788.	(Agrost. 2468.)	**13792.**	(Agrost. 2472.)
13789.	(Agrost. 2469.)	**13793.**	(Agrost. 2473.)
13790.	(Agrost. 2470.)		

13794. Onobrychis onobrychis. **Sainfoin.**

From Argentina. (Agros. 2475.)

13795. Bromus inermis. **Smooth brome-grass.**

From Pueblo, Colo. Received thru Keen Bros., April, 1905.

This seed is from a good crop grown under conditions of unusual drought and high temperature. It may therefore be valuable in extending the range of this plant farther south.

13796. Vicia angustifolia (?). **Vetch.**

From Augusta, Ga. Received thru the N. L. Willet Drug Company, April, 1905.

Said to be the most valuable vetch grown in the vicinity of Augusta, Ga.

13797. Lolium bonaerensis.

From Argentina. Received from Argentine exhibit, Louisiana Purchase Exposition, spring of 1905.

13798 to 13800.

From Buitenzorg, Java. Presented by Doctor Treub. Received May 4, 1905.

13798. Nephelium lappaceum. **Rambutan.**

13799. Nephelium mutabile. **Kapoelasan.**

13800. Garcinia mangostana. **Mangosteen.**

13801 and 13802.

From London, England. Received thru James Veitch & Son, April 21, 1905.

13801. ACER MYABEI.

13802. MAGNOLIA STELLATA ROSEA.

13803. AGAPANTHUS UMBELLATUS.

From Berlin, Germany. Received thru L. Spath in 1902.

13804. (Undetermined.)

From Argentina. Received thru Dr. B. T. Galloway in 1902.

Seeds of a tree probably belonging to the family Myrtaceae.

13805. HESPERALOË FUNIFERA.

From Cerritos, Mexico. Received August, 1903. Grown under G. & G. No. 3995 and numbered in May, 1905.

"While the plant is used to a considerable extent for the production of fiber in Mexico, I think it is doubtful whether it could be used for this purpose profitably in this country with our present facilities for cleaning fiber. It is a rather striking ornamental plant, with its large open panicle of pinkish or purplish flowers, followed by pear-shaped, dark-purple seed pods. I would recommend it especially for planting in dry situations in parks and in the Southern States. In the northern part of its range in Mexico it must endure winter temperatures down to zero, and if planted in well-drained soils and protected by a mulch in winter, it will doubtless survive out of doors in the parks of the Southern States." (*Dewey.*)

13806. PSIDIUM GUAJAVA POMIFERUM. **Guava.**

From Argentina. Received thru Dr. B. T. Galloway in 1902. Grown under G. & G. No. 358 and numbered in May, 1905.

13807. HIPPEASTRUM hyb.

From Washington, D. C. Numbered May 7, 1905.

A seedling with double flowers, produced by Mr. G. W. Oliver by crossing.

13808. CINNAMOMUM CAMPHORA. **Camphor.**

From Huntington, Fla. Collected by Mr. W. O. Richtmann, of Drug and Medicinal Plant Investigations, from a tree on the grounds of Dr. George E. Walker, April, 1905.

13809 to 13818.

From Laguna, Cal. Collected by Dr. B. T. Galloway, in the vicinity of Laguna, and sent to Mr. G. W. Oliver for use in breeding. Received May 7, 1905.

13809. MEDICAGO sp.

13810. TRIFOLIUM sp.

13811. LESPEDEZA JAPONICA.

13812. AVENA sp. **Oat.**

"Thousands of acres of this wild oat are being harvested for hay. Good thing for hybridizing. Grown on soil with 10 inches of rain. Cuts 4 to 5 tons per acre." (*Galloway.*)

13813. (Undetermined.) **Grass.**

13814. (Undetermined.) **Grass.**

13815. (Undetermined.) **Grass.**

13816. ECHINOCYSTIS sp. (No. 1.)

13817. ECHINOCYSTIS sp. (No. 2.)

13818. BLOOMERIA AUREA.

13819 to 13851. DIOSPYROS KAKI. **Japanese persimmon.**

A collection of plants of named varieties secured for the use of Mr. G. W. Oliver in breeding work. Received in January, 1905.

13819 to 13820.

Received thru the P. J. Berckmans Company, Augusta, Ga.

13819. *Maru gata.*
13820. *Miye tan.*

13821 to 13825.

Received thru the Fancher Creek Nurseries, Fresno, Cal.

13821. *Dai-dai maru.*
13822. *Goshi gaki.*
13823. *Hachiya.*
13824. *Tsuro noko.*
13825. *Yemon.*

13826 to 13834.

Received thru Mr. G. L. Taber, Glen St. Mary, Fla.

13826. *Costata.*
13827. *Okame.*
13828. *Taber's No. 23.*
13829. *Taber's No. 129.*
13830. *Tane nashi.*
13831. *Triumph.*
13832. *Tsuru.*
13833. *Yeddo ichi.*
13834. *Zengi.*

13835 to 13851.

Received thru the Yokohama Nursery Company, Yokohama, Japan.

13835. *Dai-dai maru.*
13836. *Daitsurumoko.*
13837. *Giboshi.*
13838. *Gosho.*
13839. *Hachiya.*
13840. *Kozuru.*
13841. *Kuro kuma.*
13842. *Mamegaki.*
13843. *Minozuru.*
13844. *Mushirazu.*
13845. *Mizigaki.*
13846. *Shakumi.*
13847. *Shibuyemon.*
13848. *Tane nashi.*
13849. *Zenji maru.*
13850. (Unnamed.)
13851. (Unnamed.)

13852. CEPHALARIA TATARICA.

From New York, N. Y. Received thru J. M. Thorburn & Co., May 5, 1905.

13853. TRIFOLIUM REPENS. **White clover.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., May 6, 1905.

White Lodino. "This is a giant form of white clover from the Po Valley, truly perennial, hardy, tall (2 feet), recovering more quickly than other clovers after cutting. Not adapted to light, sandy, or poor soil, but gives 3 to 4 cuttings; 4 to 5 tons of hay on rich soil." (*Vilmorin-Andrieux & Co.*)

13854 to 13856. TRITICUM DURUM. **Macaroni wheat.**

From North Platte, Nebr. Received April 29, 1905.

Macaroni wheats grown by the Nebraska Experiment Station from imported seed.

13854. *Yellow Gharnovka.*
13855. *Black Don.*
13856. *Velvet Don.*

13857 and 13858. MEDICAGO SATIVA. **Alfalfa.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., May 8, 1905.

13857. From Simbirsk, Russia.
13858. From Kharkof, Russia.

13859. ALLIUM CEPA. **Onion.**

From Paris, France. Presented by Vilmorin-Andrieux & Co. Received May 6, 1905.

Sainte Marie. "This onion is remarkable for its great earliness. It is flat in shape, with a very fine neck, and produces, as quickly as the *White Queen* onion, marketable bulbs of a larger size than those of the latter. It seems to us that it might be a desirable variety for truck farmers in the Southern States." (*Vilmorin-Andrieux & Co.*)

13860. STIPA TENACISSIMA. **Esparto grass.**

From Office of Grass and Forage Plant Investigations. Received May 9, 1905. Originally from J. M. Thorburn & Co., New York, N. Y. (Agrost. No. 2216.)

13861. NEPHELIUM MUTABILE. **Kapoelasan.**

From Buitenzorg, Java. Presented by Doctor Treub. Received May 12, 1905.

13862. CLITORIA TERNATEA (?) **Butterfly pea.**

From Porto Rico. Grown from seed presented by the Governor. Plants numbered May 6, 1905.

13863. CLEMATIS DAVIDIANA. **Clematis.**

From Philadelphia, Pa. Received thru Henry A. Dreer, Incorporated, May 6, 1905.

13864. HYDRASTIS CANADENSIS. **Golden-seal.**

From Mantua, Ohio. Received thru Mr. A. W. Russel, at the request of Mr. W. W. Stockberger, May 15, 1905. Seed for use in connection with experiments being carried on by Dr. R. H. True.

13865 to 13924.

From Pretoria, South Africa. Presented by Mr. G. Baylis, Division of Botany, Transvaal Department of Agriculture, thru Prof. W. J. Spillman. Received May 1, 1905.

A collection of native grass seeds as follows (the numbers in parentheses are Mr. Baylis's):

13865. (Natal redtop.) (239/05.)

13866. (Native grass.) (240/05.)

13867. ERAGROSTIS sp. (241/05.)

13868. ERAGROSTIS sp. (242/05.)

13869. (Native grass.) (243/05.)

13870. (Native grass.) (244/05.)

13871. ERAGROSTIS CHLOROMELAS. (245/05.)

13872. (Native grass.) (247/05.)

13873. ANDROPOGON CONTORTUS. (248/05.)

13874. (Native grass.) (249/05.)

13875. ERAGROSTIS sp. (250/05.)

13876. ERAGROSTIS sp. (251/05.)

13877. AGROSTIS sp. (252/05.)

13878. CAPRIOLA DACTYLON (253/05.)

13879. ARISTIDA sp. (254/05.)

13880. ANDROPOGON sp. (255/05.)

13881. ELIONURUS ARGENTENUS. (256/05.)

13882. ANDROPOGON sp. (257/05.)

13883. ERAGROSTIS PLANA. (258/05.)

13884. ERAGROSTIS LAPPULA DIVARICULA. (259/05.)

13885. ERAGROSTIS sp. (260/05.)

13865 to 13924—Continued.

13886. Arundinella ecklonii. (261/05.)

13887. Chaetochloa sp. (262/05.)

13888. (Native grass.) (263/05.)

13889. Andropogon eucomus. (264/05.)

13890. (Native grass.) (265/05.)

13891. (Native grass.) (277/05.)

13892. Aristida sp. (278/05.)

13893. Tricholaena rosea. (279/05.)

13894. Panicum colonum. (281/05.)

13895. Chloris virgata. (282/05.)

13896. Eragrostis sp. (285/05.)

13897. Eragrostis sp. (286/05.)

13898. (Native grass.) (287/05.)

13899. Aristida sp. (288/05.)

13900. Eragrostis sp. (289/05.)

13901. Chloris virgata. (290/05.)

13902. (Native grass.) (291/05.)

13903. (Native grass.) (292/05.)

13904. Eragrostis sp. (293/05.)

13905. (Native grass.) (294/05.)

13906. Eragrostis sp. (295/05.)

13907. (Native grass.) (296/05.)

13908. (Native grass.) (297/05.)

13909. (Native grass.) (298/05.)

13910. Chaetochloa aurea. (299/05.)

13911. Chaetochloa sp. (300/05.)

13912. Chaetochloa nigrirostre (?) (301/05.)

13913. Panicum isachne. (302/05.)

13914. Chaetochloa pennisetum (?) (303/05.)

13915. (Native grass.) (305/05.)

13916. (Native grass.) (306/05.)

13917. (Native grass.) (307/05.)

13918. (Native grass.) (308/05.)

13919. Chaetochloa sp. (309/05.)

13920. (Native grass.) (310/05.)

13921. Eragrostis major megastachya. (311/05.)

13922. Paniculum sulcatum. (312/05.)

13923. (Native grass.) (313/05.)

13924. (Native grass.) (315/05.)

13925 to 13946. Clematis spp. **Clematis.**

From Philadelphia, Pa. Received thru Henry A. Dreer, Incorporated, May 6, 1905.

13925. Clematis flammula (*Rubra marginata*).

13926. Clematis indivisa.

13927. Clematis coccinea.

13928 to 13945. Clematis spp.

13928. *Anderson Henryi.*

13929. *Boskoop Seedling.*

13930. *Fairy Queen.*

13931. *Duchess of Edinburgh.*

13932. *Gipsy Queen.*

13933. *Jackmani.*

13934. *Jackmani Superba.*

13935. *Lilacina Floribunda.*

13925 to 13946—Continued.

13928 to 13945—Continued.

13936. *M. Koster.*

13937. *Mme. Baron Veillard.*

13938. *Mme. Van Houtte.*

13939. *Miss Bateman.*

13940. *Standishi.*

13941. *The Gem.*

13942. *The President.*

13943. *Countess of Onslow.*

13944. *Duchess of Albany.*

13945. *Duchess of York.*

13946. CLEMATIS INTEGRIFOLIA DURANDII.

13947 to 13949. PHALARIS CANARIENSIS. **Canary grass.**

From Monte, Grand Canary. Presented by Mr. Alaricus Delmard, Hotel Santa Brigada. Received April 24, 1905.

"*Phalaris canariensis*, as a matter of fact, is hardly grown in the islands and mostly comes from the Province of Alicante, in Spain. But one person grows it here, and I will forward you a packet of the seed. Again I regret that I can only discover one variety as grown here. It may have been grown as a crop for the sale of seed in former times in these islands, but certainly is so no longer. The seed I now have comes from Morocco and Buenos Aires, and also from Seville; that from the former two places costs 62 pesetas for 100 kilos, and from Seville 65 pesetas." (*Delmard.*)

13947. Grown in Buenos Aires.

13948. Grown in Morocco.

13949. Grown in Monte.

13950 and 13951. PHALARIS spp.

From San Giovanni a Teduccio, Italy. Received thru Dammann & Co., April 25, 1905.

13950. PHALARIS CANARIENSIS. **Canary grass.**

13951. PHALARIS ARUNDINACEA. **Reed canary grass.**

13952 to 13966. BETA VULGARIS. **Sugar beet.**

Sugar-beet seeds planted at Fairfield, Wash., in the spring of 1905, by Mr. Joseph F. Reed, assistant in sugar-beet experiments, from selected roots.

13952. *Kleinwanzleben;* tested 23 per cent sugar.

Roots selected from Mr. E. H. Morrison's general stock in 1903. Seed raised in 1904.

13953. *Kleinwanzleben;* tested 23 per cent sugar.

Roots selected from No. 12846 (Lehi seed) in 1903. Seed raised in 1904.

13954. *Kleinwanzleben;* tested 22 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13955. *Kleinwanzleben;* tested 21 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13956. *Kleinwanzleben;* tested 20 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13957. *Kleinwanzleben;* tested 19 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13958. *Kleinwanzleben;* tested 19 per cent.

Roots selected from No. 12846 (Lehi seed) in 1903.

13959. *Kleinwanzleben;* tested 18 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13952 to 13966—Continued.

13960. *Kleinwanzleben;* tested 18 per cent.

Roots selected from No. 12849 (Morrison seed), 1903.

13961. *Kleinwanzleben;* tested 18 per cent.

Roots selected from No. 12846 (Lehi seed) in 1903.

13962. *Kleinwanzleben;* tested 17 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13963. *Kleinwanzleben;* tested 16 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13964. *Dippe Elite Kleinwanzleben;* tested 16 per cent.

Roots selected from *Dippe Kleinwanzleben*, 1903.

13965. *Kleinwanzleben;* tested 15 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903.

13966. *Kleinwanzleben;* tested 15 per cent.

Roots selected from Mr. E. H. Morrison's general stock in 1903. The outside seed stalks were cut out, allowing more nourishment to the stalks produced from the inner or sugar rings of the beet.

13967. CARISSA ARDUINA. **Amatungulu.**

From Cape Town, South Africa. Presented by Prof. P. MacOwan, government botanist, Department of Agriculture, Cape of Good Hope. Received April 24, 1905.

"A handsome apocynaceous shrub which may make an ornamental hedge plant in your Southern States. The glittering green of the foliage and the curious rectangular mode of branching catch the eye, but, like some other African Sepiariae, it requires the severest discipline with the shears, and, I must say, submits to it well.

"Even the Apple-of-the-Kei, now spread over the warmer world, is not more destined to the steel than is this Carissa. The flowers are borne in small umbels, brilliantly white, scented, and succeeded by lots of scarlet ovoid fruits, the beloved 'num-nums' of natives and kids generally. I hope you will push it into notice among amateurs. They can make cones or pyramids of it, if they like, in the antique topiary fashion." (*MacOwan.*)

13968 to 13975.

From Pretoria, Transvaal, South Africa. Presented by Prof. J. Burtt Davy, government agrostologist and botanist, Transvaal Department of Agriculture. Received May 15, 1905.

"Small samples of local varieties of wheat, oats, Nepaul barley, and maize. For your guidance in their disposal I may say that this is a region of hot days and cool nights (frosty in winter), with summer rains, and a long, cool, rainless winter. The rainfall runs from 20 to 30 inches, but is discounted by six or seven months of practical drought." (*Davy.*)

13968. AVENA sp. **Oat.**

Boer. (283/05.)

13969. HORDEUM sp. **Barley.**

Tibet. (217/05.)

13970. ZEA MAYS. **Corn.**

Egyptian. (990/04.)

13971. ZEA MAYS. **Corn.**

North American. (992/04.)

13968 to 13975—Continued.

13972. Zea mays. **Corn.**

White Botman Mealie. (694/04.)

13973. Triticum vulgare. **Wheat.**

Klein Koren. (284/05.)

13974. Triticum vulgare. **Wheat.**

Tibet. (216/05.)

13975. Triticum vulgare. **Wheat.**

Wol Koorn. (498/04.)

13976 to 13985. Berberis sp. **Barberry.**

From St. Petersburg, Russia. Presented by Messrs. Regel and Kesselring, of the Royal Botanical Gardens. Received May 11, 1905.

13976. Berberis sinensis.

13977. Berberis thunbergii maximowiczi.

13978. Berberis thunbergii.

13979. Berberis vulgaris.

13980. Berberis vulgaris sulcata.

13981. Berberis vulgaris amurensis.

13982. Berberis vulgaris emarginata.

13983. Berberis vulgaris macrocarpa.

13984. Berberis vulgaris purpurea.

13985. Berberis vulgaris spathulata.

13986 to 13988.

From Buitenzorg, Java. Received thru Doctor Treub, May 20, 1905.

13986. Lansium domesticum. **Doekoe.**

13987. Garcinia mangostana. **Mangosteen.**

13988. Nephelium mutabile. **Kapoelasan.**

13989 to 13992.

From New York, N. Y. Received thru J. M. Thorburn & Co., May 12, 1905.

13989. Hedysarum coronarium. **Sulla.**

13990. Ornithopus sativus. **Serradella.**

13991. Onobrychis onobrychis. **Sainfoin.**

13992. Pisum arvense. **Canada field pea.**

13993 to 13998.

From Westbury Station, Nassau County, N. Y. Received thru Isaac Hicks & Son, May 25, 1905.

Ornamental plants as follows:

13993. Acer carpinifolium.

13994. Cornus macrophylla.

13995. Cornus macrophylla.

13996. Viburnum dilatatum.

13997. Quercus cuspidata.

13998. Stuartia pseudocamellia.

13999. Medicago sativa. **Alfalfa.**

From Ogden, Utah. Received thru Mr. P. A. Nebeker, May 23, 1905.

Turkestan alfalfa, grown on unirrigated land from imported seed (probably S. P. I. No. 991) furnished Mr. Nebeker in 1900.

14000 to 14005. GLADIOLUS spp. **Gladiolus.**

From New York, N. Y. Received from Mr. W. Van Fleet, April 5, 1905.

14000. GLADIOLUS CRUENTUS.

14001. GLADIOLUS PURPUREO-AURATUS.

14002. GLADIOLUS DRACOCEPHALUS.

14003. GLADIOLUS PSITTACINUS.

14004. GLADIOLUS SAUNDERSII.

14005. GLADIOLUS LEICHTLINI.

14006 to 14072. GLADIOLUS spp. **Gladiolus.**

From Floral Park, N. Y. Received thru Mr. John Lewis Childs, April 8, 1905.

14006 to 14034. GLADIOLUS CHILDSII.

14035 to 14061. GLADIOLUS GANDAVENSIS.

14062 to 14072. GLADIOLUS LEMOINEI.

14073 to 14087. GLADIOLUS spp. **Gladiolus.**

From Berlin, N. Y. Received thru Mr. Arthur Cowee, April 12, 1905.

14088 to 14155. GLADIOLUS spp. **Gladiolus.**

From Nancy, France. Received thru V. Lemoine & Son, May 4, 1905.

14156 to 14259. GLADIOLUS spp. **Gladiolus.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., May 10, 1905.

14260 to 14267. GLADIOLUS spp. **Gladiolus.**

From Erfurt, Germany. Received thru Haage & Schmidt, May 10, 1905.

14268 to 14412. GLADIOLUS spp. **Gladiolus.**

From Somerset, England. Received thru Kelway & Sons, Langport, May 12, 1905.

(See the circular of the Bureau of Plant Industry entitled "A Variety Collection of Gladiolus," 1905.)

14413 to 14418.

From Sultepec, Mexico. Presented by Mr. Federico Chisolm. Received May 12, 1905.

A small collection of unidentified plants.

14419. TULIPA sp. **Tulip.**

From Dedham, Mass. Received thru Mr. A. W. Cheever, August 25, 1905.

14420 and 14421. NICOTIANA TABACUM. **Tobacco.**

From Sao Paulo, Brazil. Presented by Dr. H. M. Lane, Mackenzie College. Received May 25, 1905.

14420. *Fumo Creolo.* Seed from near Cotia, State of Sao Paulo, Brazil.

14421. Seed from Pirassununga, State of Sao Paulo, Brazil.

14422 to 14431.

From Honolulu, Hawaii. Presented by Mr. Ralph S. Hosmer, superintendent of forestry, Hawaiian Bureau of Agriculture and Forestry. Received May 31, 1905.

14422. RAUWOLFIA SANDWINCENSIS.

Native name *Hao.* A small, milky tree.

14422 to 14431—Continued.

14423. Cheirodendron gaudichaudii.

Native name *Olapa.* A tree 30 to 50 feet high. The natives prepare a blue dye from the bark and leaves.

14424. Maba sandwicensis.

Native name *Lama.* Grows to a height of from 20 to 40 feet.

14425. Caesalpinia kauaiensis.

Native name *Uhiuhi.* A low shrub 3 to 4 fee

14426. Erythrina monosperma.

Native name *Wiliwili.* An ornamental tree 20 to 25 feet high, with short, thick trunk and spreading crown. The tree loses its leaves in late summer, and in the spring before the new leaves are out scarlet flowers appear. The wood is soft and corklike.

14427. Dracaena aurea.

Native name *Halapepe.* A glabrous tree 20 to 25 feet high, from the wood of which the natives used to carve their idols.

14428. Myrsine lassertiana.

Native name *Kolea.* A tree 20 to 50 feet high. The natives used to extract a red dye from the bark.

14429. Alphitonia ponderosa.

Native name *Kauwila.* A tall tree, often attaining 50 to 83 feet. The wood is remarkable for close grain, hardness, and heavy weight, on which account the natives preferred it for making spears, mallets for beating kapa, and other tools; turns black with age.

14430. Dodonaea viscosa.

Native name *Aalii.*

14431. Myoporum sandwicensis.

"Native name *Naeo.* English name 'bastard sandalwood.' Tree 20 to 30 feet high. The wood of this tree, most so the roots, becomes fragrant on drying, with an odor resembling that of sandalwood, whence its English name. After the exhaustion of the true sandalwood it was exported for some time to China as a substitute." (*Hillebrand.*)

14432. Gerbera jamesoni. **Barberton daisy.**

From Lourenço Marquez, East Africa. Presented by Mr. A. E. Graham-Lawrence, thru Hon. W. Stanley Hollis, United States consul. Received July 14, 1905.

14433. (Undetermined.) **"Lemoncito."**

From Manila, P. I. Received thru Capt. George P. Ahern, chief of the Bureau of Forestry, Manila Bureau of Agriculture, July 17, 1905.

"This is a small plant, the height of which does not exceed one and one-half of that of a man, and is known only by the name of 'lemoncito.' It usually has about five very leafy branches. Its trunk is nearly 20 centimeters in diameter, of a light-yellow color, with blackish spots hardly perceptible, and of a fine fibrous texture. It is not very well known by the common people. Its branches are slender and produce leaves in groups of three, the middle one being the largest; in the growth of the leaves are found thorns somewhat pronounced; the groups of leaves are arranged in alternating order on either side of the branch up to the end. Its trunk has no odor, but its fruit has an agreeable odor somewhat like maraschino. They appear between the groups of leaves at the time of opening of the calyx of a flower from which they come, and are sometimes found in clusters and sometimes single. In the month of May this plant produces fruit in abundance and they ripen in a few days.

They have an oval form with a pronounced fiery color, are aromatic and edible with a somewhat acrid yet sweet taste.

"Commonly people who have lemoncito trees make sirup from the ripened fruit and also preserve them." (*Ahern.*)

14434 to 14463.

From Mexico. Secured by Prof. P. H. Rolfs, in charge of the Subtropical Laboratory, Miami, Fla., while traveling in Mexico as agricultural explorer of the Office of Seed and Plant Introduction in April, May, and June, 1905.

14434. PRUNUS sp. **"Ceruella."**

"A form of native Prunus, resembling the peach in color, about the size of a damson plum. Secured at Jalapa, Mexico. This plum grows in that neighborhood; consequently it is possible that seedlings from it will be able to maintain themselves in extreme southern Florida and Porto Rico. (Lab. No. 289.)" (*Rolfs.*)

14435. PERSEA GRATISSIMA. **Avocado.**

"A small quantity of bud wood secured from a tree that blooms in January and ripens fruit in May. The special value of this particular tree lies in the fact that it ripens in so short a time after blooming. The fruit, altho delicious and otherwise good, is too small to prove of value on the market. Its special value, however, lies in the fact that when it comes into bearing it can be used for hybridizing with the early forms that do have marketable fruit, and consequently the introduction is very desirable. (Lab. No. 295.)" (*Rolfs.*)

14436. CUCURBITA sp. **Squash.**

"This is a peculiar native (?) squash that is grown to some extent for the market, and it is possible that it would be of use in the Southern States for a summer vegetable on account of its extremely hard outer skin. (Lab. No. 296.)" (*Rolfs.*)

14437. CAESALPINIA sp.

"This is a flowering shrub found at Papantla, State of Vera Cruz. It resembles to some extent a plant already grown in Florida and known as the *dwarf Poinciana* (*Caesalpina pulcherrima*). It differs from this, however, in producing a much greater abundance of flowers and growing about twice the height. It is a distinct species from that mentioned. (Lab. No. 297.)" (*Rolfs.*)

14438. FICUS sp.

"A number of ripe fruits of this tree were secured from the public garden at Papantla. The fruits are about the size of black walnuts, and are inedible, tho not of unpleasant flavor; but the tree is very decorative. In general character of the tree and look of the leaves, this species would classify near *Ficus carica.* (Lab. No. 298.)" (*Rolfs.*)

14439. HIBISCUS sp.

"An Hibiscus that appears to be a native, bearing a very dark maroon-colored bloom. Quite showy and striking. (Lab. No. 299.)" (*Rolfs.*)

14440. VANILLA sp. **"Pompon."**

"This species is a very strong-growing vanilla. Produces the largest pods and in considerable quantity. Secured near Papantla, Vera Cruz. (Lab. No. 308.)" (*Rolfs.*)

14441. VANILLA PLANIFOLIA (?). **Vanilla.**

"This number appears to be the true *V. planifolia*, but could not be identified. It, however, is one of the vanilla-producing species. (Lab. No. 309.)" (*Rolfs.*)

14442. VANILLA PLANIFOLIA. **Vanilla.**

"This was secured from a vanillary some 10 or 12 miles from Papantla. It is probably the true *V. planifolia*. It is from this species that most of the commercial material is produced in this section. (Lab. No. 310.)" (*Rolfs.*)

14434 to 14463—Continued.

14443. Vanilla sp. **Vanilla.**

"The exact status of this number can not be learned until the flowers and fruit shall have been studied. It is, however, not *V. planifolia*. (Lab. No. 311.)" (*Rolfs.*)

14444. Vanilla sp. **Vanilla.**

"This is rather a weak-growing species of the vanilla genus, but I have been told that it produces beans of unusual strength. Secured on the Isthmus of Tehuantepec. (Lab. No. 312.)" (*Rolfs.*)

14445. Vanilla sp. **Vanilla.**

"This is a very narrow-leaved species. It is not a vigorous grower, but is said to be of considerable value. Secured on the Isthmus of Tehuantepec. (Lab. No. 313.)" (*Rolfs.*)

14446. Vanilla sp. **Vanilla.**

"Quite similar to 313 and may prove to be the same species, but in the field it showed considerable difference, due to the place where it was growing. Secured on the Isthmus of Tehuantepec. (Lab. No. 314.)" (*Rolfs.*)

14447. Bambusa vulgaris (?). **Bamboo.**

"This gigantic-growing bamboo was seen all along the way from a few miles below Teziutlan to Papantla. It has become rather thoroly established, and would appear to be a native of this region. A small quantity of good seed was obtained from fruiting specimens. (Lab. No. 316.)" (*Rolfs.*)

14448. Mangifera indica. **Mango.**

"Seed of what is commonly called *Manila* mango. This is probably the same mango that is called the *Philippine* mango in Cuba. Very little fiber. Fruit very long, about 5 inches, sometimes longer than this, about 3 inches broad at its broadest, about 1½ to 2 inches thick. Delicious flavor, free from turpentine, and the best varieties can be eaten with a spoon, it being possible to cut the fiber with an ordinary teaspoon. (Lab. No. 317.)" (*Rolfs.*)

14449. Carica papaya. **Papaw.**

"A very handsome specimen of this fruit was purchased for the seed. (Lab. No. 318.)" (*Rolfs.*)

14450. Castilla elastica. **Rubber.**

(Lab. No. 319.)

14451. Lycopersicum esculentum. **Tomato.**

"A small tomato, which is said to be a native of Mexico and one that occurs very commonly, especially on the Isthmus of Tehuantepec. (Lab. No. 320.)" (*Rolfs.*)

14452. Ananas sativus. **Pineapple.**

"Known as the *Guatemala Spineless White*. This variety has a number of points that would commend it for our use—spineless, ripens early, is delicious, and apparently a good shipper. (Lab. No. 323.)" (*Rolfs.*)

14453. Cicer arietinum. **Chick-pea.**

"This is a legume which in some respects resembles the English pea, and is used very largely in preparing soups and dishes of that kind. It is not generally used in this country, but if it should prove to do well the Spanish market would use all that could be furnished for some time. (Lab. No. 327.)" (*Rolfs.*)

14454. Casimiroa edulis. **White sapota.**

(Lab. No. 328.)

14455. **"Haba."**

"A legume to be found on most of the markets. (Lab. No. 329.)" (*Rolfs.*)

14434 to 14463—Continued.

14456. PRUNUS sp. **"Ceruella."**

"This species is said to be a native of Mexico and to grow very luxuriantly in the regions where oranges are produced. If this could be grown in Florida and Porto Rico it would be a very desirable acquisition. (Lab. No. 331.)" (*Rolfs.*)

14457. MUSA ENSETE.

"Seed secured in Mexico City. (Lab. No. 332.)" (*Rolfs.*)

14458. BACTRIS MAJOR. **Palm.**

"Very ornamental palm from the Isthmus of Tehuantepec. (Lab. No. 333.)" (*Rolfs.*)

14459. ZEA MAYS. **Corn.**

"Corn that grows along the Isthmus of Tehuantepec. It has some qualities that may adapt it for growth in the extreme southern part of the United States. (Lab. No. 334.)" (*Rolfs.*)

14460. **"Haba."**

"Seed of another species of legume, which occurs commonly on the various markets in Cuba. (Lab. No. 335.)" (*Rolfs.*)

14461. **"Bayo."**

"Seed of another legume. Secured in the Vera Cruz market. (Lab. No. 337.)" (*Rolfs.*)

14462. ERVUM LENS. **Lentil.**

"Appears to be a lentil, as grown in Europe. Secured in the Vera Cruz market. (Lab. No. 338.)" (*Rolfs.*)

14463.

"Seed of the tree referred to under 'No. 295.' (Lab. No. 339.)" (*Rolfs.*)

14464. CINNAMOMUM CAMPHORA. **Camphor.**

This number (14464) was assigned to camphor plants distributed by Mr. E. M. Byrnes, superintendent of gardens and grounds, in order to keep a record of the distribution.

The seeds from which the plants were grown came from various sources.

14465. ZEA MAYS. **Corn.**

From Houston, Tex. Received thru Dr. S. A. Knapp, July 14, 1905.

Laguna. Secured by Doctor Knapp from Mexico. "This is a new variety. Was grown in Texas. In the latitude of north Texas this could be planted as late as the first of August." (*Knapp.*)

14466. TRIFOLIUM INCARNATUM. **Crimson clover.**

From Richmond, Va. Received thru T. W. Wood & Son, July 20, 1905.

Late.

14467. VICIA VILLOSA. **Hairy vetch.**

From Richmond, Va. Received thru T. W. Wood & Son, July 20, 1905.

14468. VICIA FABA. **Horse bean.**

From Montreal, Canada. Received thru William Ewing & Co., July 20, 1905.

14469. GOSSYPIUM sp. **Cotton.**

From Chicago, Ill. Received thru Mr. I. L. Hauser (?), 225 Dearborn street, July 17, 1905.

14470. ERAGROSTIS ABYSSINICA. **Teff.**

From San Giovanni a Teduccio, near Naples, Italy. Received thru Dammann & Co., July 21, 1905.

14471. XANTHOSOMA SAGITTIFOLIUM. **Yautia.**

From Mayaguez, P. R. Received from the Agricultural Experiment Station, July 24, 1905.

"This variety is in many respects the best of all the yautias cultivated in tropical America. It yields 3 to 5 pounds to the hill, and can be grown on a great variety of soils. It requires about ten months to mature.

"This variety is known as '*Rolliza*' in Porto Rico. It is also grown in Trinidad, Venezuela, and Balize, British Honduras. The fresh roots contain 20 per cent to 28 per cent of starch, with very little fiber. 'No. 1,' of P. R. Exp. Station." (*Barrett.*)

14472 and 14473.

From Manila, P. I. Received thru Capt. George P. Ahern, chief of the Bureau of Forestry, July 24, 1905.

14472. ORANIA PHILIPPINENSIS. **Palm.**

"A palm indigenous to the Philippine Islands." (*Ahern.*)

14473. PANDANUS LUZONENSIS.

"A plant indigenous to the Philippine Islands, found at elevations up to 600 meters above sea level. Apparently closely related to *Pandanus sylvestris* Bory, from the island of Reunion, differing in its larger size, longer leaves, etc. Described in Bulletin No. 17, Bureau of Government Laboratories, Manila, P. I., 'New or Noteworthy Philippine Plants, II,' by Botanist Elmer D. Merrill." (*Ahern.*)

14474. VIGNA SINENSIS. **Cowpea.**

From Grovetown, Ga. Received thru Mr. W. W. Hamilton, July 26, 1905.

14475. SOLANUM COMMERSONI. **Aquatic potato.**

From Montevideo, Uruguay. Received thru Dr. J. Clyde Macartney, July 25, 1905.

14476. OPUNTIA sp. **Prickly pear.**

This number (14476) was assigned to about 500 seedling cacti sent by Mr. Luther Burbank, Santa Rosa, Cal., to Dr. S. A. Knapp, San Antonio, Tex., for planting on the Government demonstration farm.

14477 to 14479.

From City of Mexico, Mexico. Received thru Dr. J. N. Rose, of the United States National Museum, July 28, 1905.

A collection of unidentified plants.

14480. IPOMOEA BATATAS (?). **Dahomey sweet potato.**

From Bordeaux, France. Received thru Hon. Albion W. Tourgee, United States consul, July 31, 1905.

This plant "is a native of Dahomey and very prolific. The leaves of the plant can be used as a substitute for spinach, and the tubers, containing a higher percentage of sugar than beets, are fine flavored and make exceptionally good food for live stock." (*Tourgee.*)

14481. LILIUM LONGIFLORUM EXIMEUM. **Easter lily.**

From Washington, D. C. Received July 31, 1905. Selected bulbs grown in the Department greenhouses.

14482. JUNCUS EFFUSUS. **Matting rush.**

From California. Collected under the direction of Prof. A. V. Stubenrauch. Roots secured from California marshes for work on the matting-rush industry.

14483. CYPERUS sp.

From Kobe, Japan. Received thru Mr. A. G. Boyer, at North Galveston, Tex., April, 1904.

14484 and 14485. CAPSICUM ANNUUM. **Pepper.**

From Malaga, Spain. Received thru Hon. D. R. Birch, United States consul, July 31, 1905.

14484. *Chile.* **14485.** *Large red sweet coin.*

"This pepper is the most common variety on sale here, and the fruits are usually about 8 inches in length." (*Birch.*)

14486. SCHOENOCAULON OFFICINALE (?). **"Cebadilla."**

From San Luis Potosi, Mexico. Received thru Dr. Edward Palmer from Dr. Gregorio Borroeta, July 31, 1905.

An insecticide wash for cattle infected with ticks is said to be prepared from these plants. Related to the fly-killer (*Amiranthium muscaetoxicum*) and to the green hellebore (*Veratrum*). Imported for experiments in Cuba.

14487. PRUNUS SIBIRICA. **Siberian apricot.**

From Jamaica Plain, Mass. Received thru the Arnold Arboretum, July 28, 1905.

This variety is said to be perfectly hardy in Massachusetts.

14488. BIDENS HETEROPHYLLA. **"Malpe" tea.**

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, August 1, 1905.

"A great part of the stuff sold as 'tea' in Mexico is the rolled leaves of this plant." (*Chisolm.*)

14489. (Undetermined.)

From Tacoma, Wash. Presented by Gen. William G. Le Duc. Received July 27, 1905.

"Plant said to be used by the Indians as a cure for 'mountain fever;' fruits are edible." (*Le Duc.*)

14490. SOLANUM TUBEROSUM. **Potato.**

From Edinburgh, Scotland. Secured by Prof. L. R. Jones, of the Vermont Experiment Station, from T. A. Scarlett, and sent direct to Burlington, Vt.

El Dorado. "A potato that is of peculiar prominence for disease resistance. In 1904 speculation forced the price as high as $16 a pound." (*Jones.*) (See No. 13034.)

14491. NARCISSUS POETICUS ALBA fl. pl.

From Edinburgh, Scotland. Received thru the Royal Botanical Gardens, August 7, 1905.

14492. PANICUM MAXIMUM. **Guinea grass.**

From Australia. Received thru J. M. Thorburn & Co., New York, N. Y., May 25, 1905.

14493 to 14497.

From Paris, France. Received thru Vilmorin-Andrieux & Co., May 26, 1905.

Clover and alfalfa seeds:

14493. TRIFOLIUM PRATENSE. **Red clover.**

Trefle, violet de Russie.

14494. TRIFOLIUM INCARNATUM. **Crimson clover.**

Trefle, incarnat de Russie.

14495. TRIFOLIUM REPENS. **White clover.**

Trefle, blanc de Russie.

14496. MEDICAGO SATIVA. **Alfalfa.**

Luzerne de Pensa (Simbirsk).

14497. MEDICAGO SATIVA. **Alfalfa.**

Luzerne de Charkow.

14498. PERSEA INDICA.

From Monte, Grand Canary. Presented by Mr. Alaricus Delmard. Received June 1, 1905.

Seeds from Teneriffe. "Procured for the purpose of growing stocks upon which to graft seedling avocado (*Persea gratissima*) for planting in localities which require a more hardy stock than the latter." (*Fairchild.*)

14499. VIGNA SINENSIS. Cowpea.

From Richmond, Va. Received thru T. W. Wood & Sons, June 1, 1905.

Wonderful.

14500 to 14775. ANDROPOGON SORGHUM. Sorghum.

From Bombay Presidency, India. Received by the Office of Grass and Forage Plant Investigations, April 27, 1903, from Hon. J. W. Mollison, Inspector-General of Agriculture in India. Turned over to the Office of Seed and Plant Introduction and numbered in the spring of 1905.

A collection of sorghums obtained from Surat Farm, Bombay Presidency.

14500. *Dharla* (A).
14501. *Kar Juar.*
14502. *Garia Yellow.*
14503. *Ellichpuri.*
14504. *Gare.*
14505. *Akada.*
14506. *Garia Yellow* (A).
14507. *Yellaspuri.*
14508. *Kalbondi.*
14509. *Dharla.*
14510. (Variety from Sampgaon.)
14511. *Akada* (A).
14512. *Sadagar.*
14513. *Kar Juar* (A).
14514. *Patasi.*
14515. *Nirmali.*
14516. *Gare Nasik.*
14517. *Akada* (B).
14518. *Akada* (C).
14519. *Gangad.*
14520. *Garia Dharla.*
14521. *Akada* (D).
14522. *Garathi.*
14523. *Nilwa Khandesh.*
14524. *Bile Juar.*
14525. *Kondal.*
14526. *Gari.*
14527. *Gudhagi.*
14528. *Dukri.*
14529. *Juari.*
14530. *Dakshni.*
14531. *Mergar* (B).
14532. *Kar Juar* (B).

14500 to 14775—Continued.

14533. *Akada.*
14534. *Mergari.*
14535. *Meldani.*
14536. *Fulgar* (A).
14537. *Nadial.*
14538. *Jowala.*
14539. *Akada* (E).
14540. *Adola.*
14541. *Bile Juar* (A).
14542. *Akada Khandesh.*
14543. *Garia* or *Dhavla.*
14544. *Kondi.*
14545. *Rati.*
14546. *Gid-Gidgempu.*
14547. *Fulgar Karajgi.*
14548. *Mumtnigal.*
14549. (Sampgaon variety No. 2)
14550. *Pandharpuri Ramker.*
14551. *Deola.*
14552. *Saphet.*
14553. *Lawhi.*
14554. *Haldi.*
14555. *Pivali Wani.*
14556. *Narli Wani.*
14557. *Ushira.*
14558. *Kalbondi.*
14559. *Edna.*
14560. *Dudhawani.*
14561. *Charoli Wani.*
14562. *Dukri* or *Talap.*
14563. *Daner.*
14564. *Bansmati.*
14565. *Lokhamdi.*
14566. *Deolari.*
14567. *Argar.*
14568. *Bagle* or *Supte.*
14569. *Ringna.*
14570. *Motichur.*
14571. *Badgonda.*
14572. *Baidria.*
14573. *Deola* (A).
14574. *Ganer.*
14575. *Mohwani.*
14576. *Bani.*
14577. *Pawana Nadi.*
14578. *Baidra* (A).
14579. *Lal Gunja.*
14580. *Patasi Juar.*
14581. *Motichur.*
14582. *Sholapuri.*
14583. *Nadyal.*
14584. *Juari.*
14585. *White Dumraon.*
14586. *Gumeri.*
14587. *Dukri.*
14588. *Durga.*
14589. *Bana of Jalaon.*
14590. *Bhanna of Jhansi.*
14591. *Lal.*
14592. *Jharloo.*
14593. *Doliya.*
14594. *Bania.*
14595. *Laliya.*
14596. *Supeta.*
14597. *Kombrai.*
14598. *Pyaria Iksari Banda.*
14599. *Iksari Banda.*
14600. *Pyaria.*
14601. *Safed Dupta Banda.*
14602. *Alapuri.*
14603. *Dulari.*
14604. *Dugadia Zard.*
14605. *Ikdani.*
14606. *Purbi Magha.*
14607. *Country White.*
14608. *Gugadia Safed.*
14609. *Jogia.*
14610. *Domni.*
14611. *Chatka.*
14612. *Bangra.*
14613. *Lallu.*
14614. *Bedaer.*
14615. *Gugadia.*
14616. *Gogla.*
14617. *Purbi Murabad.*
14618. *Deshi.*
14619. *Ganga Jamni.*

14500 to 14775—Continued.

14620. *Jamnapuri.*
14621. *Juar of Bijnore.*
14622. *Bannia Dadri.*
14623. *Pirbahi Lucknow.*
14624. *Pirbahi Unao.*
14625. *Dadri of Unao.*
14626. *Red of Ajangarh.*
14627. *Bannia.*
14628. *Jhalaria.*
14629. *Paundia.*
14630. *Dudhia.*
14631. *Jhangaria.*
14632. *Jhalria.*
14633. *Bannia of Sitapur.*
14634. *Palarhia.*
14635. *White of Ray Barelly.*
14636. *Natwa.*
14637. *Lagwa.*
14638. *Red.*
14639. *White.*
14640. *Mailki.*
14641. *Ganga Jali.*
14642. *Dudghiya.*
14643. *Nerio Perio.*
14644. *Bannia of Cawnpur.*
14645. *Nandiyal.*
14646. *Kabgar.*
14647. *Lohor.*
14648. *Yennigar.*
14649. *Mamadpuri Gidd.*
14650. *Vilayati* or *Kempugidd.*
14651. *Kalia Gondicha Vilayati.*
14652. *Mud Shedgar.*
14653. *Khabba Shedgar.*
14654. *Vibhuti Gund.*
14655. *Kala Gund.*
14656. *Moti Jondhala.*
14657. *Paramsali.*
14658. *Udda Maldani.*
14659. *Gidd Maldani.*
14660. *Bilegar.*
14661. *Gund.*
14662. *Bile Nandiyal.*
14663. *Amaldani.*
14664. *Baswanpad.*
14665. *Shedgar.*
14666. *Shalu.*
14667. *Makchandri.*
14668. *Holgi.*
14669. *Hundi.*
14670. *Zamli.*
14671. *Kagi Moti.*
14672. *Mangar.*
14673. *Kalbondi.*
14674. *Duhar Maski.*
14675. *Bendri.*
14676. *Guldhavi.*
14677. *Lakdi.*
14678. *Shalu.*
14679. *Nilwa.*
14680. *Gola.*
14681. *Nirwati.*
14682. *Gari.*
14683. *Ellichpuri.*
14684. *Khondi Chandor.*
14685. *Lakadia Juar.*
14686. *Dukri.*
14687. *Dadar.*
14688. *Khonde Malegaon.*
14689. *Shalu.*
14690. *Lagwa* (A).
14691. *Dagdi.*
14692. *Red* (erect-headed of No. 14638).
14693. *Juar Nandgaon.*
14694. *Shalu.*
14695. *Argad.*
14696. *Dukri.*
14697. *Hundi.*
14698. *Gidd-Gapp.*
14699. *Waradi Juar.*
14700. *Hundi.*
14701. *Jondhala.*
14702. *Maldani.*
14703. *Tambdi.*
14704. *Gudadi.*
14705. *Jagadi.*
14706. *Dadia.*

14500 to 14775—Continued.

14707. *Farfaria.*
14708. *Deshi Perio.*
14709. *Sholapuri.*
14710. *Chapti.*
14711. *Perio Halko.*
14712. *Nialo.*
14713. *Ratadia.*
14714. *Juar.*
14715. *Sundhia.*
14716. *Komasu Juar.*
14717. *Shalu Juar.*
14718. *Malvan.*
14719. *Utavli.*
14720. *Sakar Makar.*
14721. *Sundhia* (B).
14722. *Sorghum Amber.*
14723. *Sorghum Collier.*
14724. *Raj. Hansa.*
14725. *Imphee.*
14726. *Sakar Makar* (A).
14727. *Kend.*
14728. *Motichur.*
14729. *Perio.*
14730. *Sholapuri.*
14731. *Chapti.*
14732. *Nialo.*
14733. *Rati* (A).
14734. *Jogadi.*
14735. *Ellichpuri* (A).
14736. *Ellichpuri* (B).
14737. *Nilwa Poona* (not ordinary).
14738. *Kempu* (C).
14739. *Mevgar* (A).
14740. *Gidd Juari.*
14741. *Wani Perio.*
14742. *Kempu Poona.*
14743. *Kempu.*
14744. *Kempu* (A).
14745. *Kempu* (B).
14746. *Kachakachi.*
14747. *Gundi Teni.*
14748. *Kempu Malkin.*
14749. *Holgi Gola.*
14750. *Dudha Mogra.*
14751. *Tambdi Sholapuri.*
14752. *Dukri* (A).
14753. *Dukri* (B).
14754. *Sargad.*
14755. *Gund Chikodi.*
14756. *Gund Chikodi* (A).
14757. *Gund* (A).
14758. *Paramsali.*
14759. *Hassar Juar* (Sampgaon).
14760. *Hassar.*
14761. *Holgi Jola.*
14762. *Chikna.*
14763. *Maldani* (A) (Poona).
14764. *Kempu* (D).
14765. *Vairagad Belsi.*
14766. *Kagi.*
14767. *Darker.*
14768. *Darker* (A).
14769. *Sundhia Juwar* (Poona Farm).
14770. *Nilwa* (Bombay Presidency).
14771. *Utavli.*
14772. *Kavli.*
14773. *Charodi* (Surat Farm).
14774. *Ameria Sundhia* (Nadiad Farm).
14775. *Farfaria.*

14776. PANICUM MAXIMUM. **Guinea grass.**

From Sydney, New South Wales. Presented by Anderson & Co., George street. Received June 3, 1905.

14777. OPUNTIA FICUS-INDICA. **Prickly pear.**

From Honolulu, Hawaii. Presented by Mr. C. C. Conradt. Received June 3, 1905.

14778. JUNCUS EFFUSUS CONGLOMERATUS. **Matting rush.**

From Cat Island, S. C. Collected by Mr. J. H. Tull, June 1, 1905.

14779 to 14785. ORYZA SATIVA. **Rice.**

From Nagpur, India. Presented by Hon. J. W. Mollison, Inspector-General of Agriculture. Received June 5, 1905.

14779. *Badshah Bhog.*

"A fine-scented variety grown in Bengal Presidency. Grows best on clay or sandy loam, and requires ample water till the variety comes into ear." (*Mollison.*)

14780. *Welchi.*

"A coarse variety grown in Bombay Presidency. Requires black soil and ample water till ripening." (*Mollison.*)

14781. *Kamod.*

"A fine-scented variety grown in Bombay Presidency. Grows on black or light soil, and requires ample water till ripening." (*Mollison.*)

14782. *Basmati.*

(See remarks on No. 14779.)

14783. *Dad Khani.*

(See No. 14779, with the exception that this is not a scented variety.)

14784. *Ambe Mohr.*

"A fine-scented variety grown in Bombay Presidency. Requires black soil and ample water till ripening." (*Mollison.*)

14785. *Katri Bhog.*

(See remarks on No. 14783.)

14786. MEDICAGO SATIVA. **Alfalfa.**

From Tashkend, Turkestan. Received thru Mr. H. W. Dürrschmidt, June 3, 1905.

14787. OPUNTIA sp. **Prickly pear.**

From San Luis Potosi, Mexico. Received from Dr. Edward Palmer, thru Dr. J. N. Rose, of the United States National Museum, June 9, 1905.

Tuna Tapona de Castilla.

14788. FREESIA sp.

From Burnett, Cal. Received thru Rees & Compere, June 12, 1905.

14789. NERINE sp.

From Raleigh, N. C. Received thru Prof. W. F. Massey, Agricultural Experiment Station, June 12, 1905.

14790. HYACINTHUS ORIENTALIS. **Roman hyacinth.**

From Burnett, Cal. Received thru Rees & Compere, June 13, 1905.

Albulus. From S. P. I. No. 12233. Received from J. M. Thorburn & Co. in the autumn of 1904.

14791 to 14798. ZEA MAYS. **Corn.**

From Richmond, Va. Received thru T. W. Wood & Sons, June 13, 1905.

Recommended to be the best varieties of corn for feeding green to stock; to be tested on sandy land near Washington, D. C.

14791. *Cocke's Prolific.*

14792. *White Columbia.*

14793. *Hickory King.*

14794. *Mammoth Shoe Peg.*

14795. *Holt's Strawberry.*

14796. *Eureka.*

14797. *Virginia Ensilage.*

14798. *Blount's Prolific.*

14799. FREESIA sp.

From Great Neck, Long Island, N. Y. Received thru Mr. Rudolph Fischer, June 13, 1905.

Purity.

14800. SOLANUM TUBEROSUM. **Potato.**

From Elmira, N. Y. Received thru Prof. L. R. Jones from Mr. C. F. Vanderhoff, Oak Grove fruit farm, May 18, 1905.

Blightproof. "Recommended as remarkably resistant to disease (blight) and also excelling in yield, size, uniformity, and compactness of tuber development in the hills." (*Jones.*) (L. R. Jones's No. 64.)

14801. GOSSYPIUM sp. **Cotton.**

From Lima, Peru. Received thru W. R. Grace & Co., New York, N. Y., June 7, 1905.

Seed of Peruvian cotton grown at Ica, in the southern part of Peru.

14802 to 14805.

From Pfiffelbach, near Apolda, Germany. Received thru Mr. A. Kirsche, June 8, 1905.

14802. AVENA SATIVA. **Oat.**

14803. TRITICUM VULGARE. **Wheat.**

Spring.

14804. BETA VULGARIS. **Beet.**

Ideal.

14805. DAUCUS CAROTA. **Carrot.**

14806 to 14810. OPUNTIA FICUS INDICA. **Prickly pear.**

From Malta. Received thru Dr. G. Borg, of San Giovanni, June 12, 1905.

14806. Small, yellow-fruited, seedless.

14807. White-fruited.

14808. Red-fruited.

14809. Reddish yellow fruited, seedless.

14810. Yellow-fruited.

14811. POLIANTHES TUBEROSA. **Tuberose.**

From Austin, Tex. Presented by Mr. F. T. Ramsey. Received June 16, 1905.

14812. LILIUM PHILIPPINENSE. **Benguet lily.**

From Boston, Mass. Received thru R. & J. Farquhar & Co., June 16, 1905.

14813 and 14814.

From Manila, P. I. Received thru Prof. William S. Lyon, horticulturist in charge of seed and plant introduction, Bureau of Agriculture, Manila, P. I., June 6, 1905.

14813. ERIODENDRON ANFRACTUOSUM.

"The lint with us is a better color than some of the kapok that comes from Java, and commands a better price in this market. It is, I think, perhaps due more to climatic or soil influences than to any varietal difference." (*Lyon.*)

14814. ORANIA PHILIPPINENSIS.

"Pericarp rich in starch—24 per cent. Very ornamental." (*Lyon.*)

14815. NEPHELIUM MUTABILE. **Kapoelasan.**

From Buitenzorg, Java. Presented by Doctor Treub, director of the Department of Agriculture. Received June 19, 1905.

14816 to 14821. OPUNTIA FICUS INDICA. **Prickly pear.**

From Palermo, Sicily. Received thru Dr. A. Borzi, director of the Botanic Gardens, June 10, 1905.

14816. *Zuccarina.*
14817. *Frutti Sanguinei.*
14818. *Senza Chiupi.*
14819. *Rossi.*
14820. *Bianchi.*
14821. (Miscellaneous; unlabeled.)

14822 to 14839. OPUNTIA spp. **Tuna.**

From San Luis Potosi, Mexico. Received from Dr. Edward Palmer, thru Doctor Rose, of the National Museum, June 19, 1905.

14822. *Blanca Crystalina.* (Doctor Rose's No. 580/05.)
14823. *Redonda Colorado.* (581/05.)
14824. *Pachona.* (582/05.)
14825. *Cueja.* (583/05.)
14826. *Joconostle.* (595/05.)
14827. *Durasnillo Blanco.* (597/05.)
14828. *Narancada.*
14829. *Cueja Arantidea.* (600/05.)
14830. *Mansa Colorado.* (600/05.)
14831. *Cacalota Blanca.* (604/05.)
14832. *Camuesa* or *Camessa.* (606/05.)
14833. *Tuna Blanca.* (607/05.)
14834. *Xoconochtli Agre.* (608/05.)
14835. *Joconostle Cambria.* (609/05.)
14836. *Cameosa Color de Rose.* (610/05.)
14837. *Amerea Mansa.* (612/05.)
14838. *San Miguel Lania.* (617/05.)
14839. *Nopalea.* (661/05.)

"An opuntia found in the dense wood to the height of 20 or more feet. Where found alone exposed it has a neat, rather compact top, with a naked stem of 7 to 9 feet and from 6 to 8 inches in diameter, with bunches of thorns up the stem. The fruits are small." (*Palmer.*)

14840 to 14869.

From Frescati, near Stockholm, Sweden. Presented by Prof. Veit Wittrock, June 21, 1905.

A collection of grass and forage crop seeds:

14840. AGROSTIS ASPERULA.
14841. AVENA PLANICULMIS.
14842. BROMUS ANDINUS.
14843. DACTYLIS ASCHERSONIANA.
14844. ELYMUS CHUBUTENSIS.
14845. ELYMUS SABULOSUS.
14846. PHLEUM MICHELII.
14847. POA ATTICA.
14848. TRITICUM CRISTATUM.
14849. TRITICUM DASYANTHUM.
14850. TRITICUM DESERTORUM.
14851. TRITICUM INTERMEDIUM.
14852. TRITICUM VIOLACEUM.
14853. MEDICAGO CARSTIENSIS.
14854. MELILOTUS ELEGANS.
14855. MELILOTUS SULCATA.
14856. MELILOTUS TOMMASINI.
14857. TRIFOLIUM ALPESTRE.
14858. TRIFOLIUM BADIUM.
14859. TRIFOLIUM MONTANUM.

14840 to 14869—Continued.

14860. TRIFOLIUM OCHROLEUCUM.

14861. TRIFOLIUM RUBENS.

14862. VICIA ALTISSIMA.

14863. VICIA CALCARATA.

14864. VICIA DASYCARPA.

14865. VICIA DISPERMA.

14866. VICIA DUMETORUM.

14867. VICIA GRANDIFLORA KITAIBELIANA.

14868. VICIA PISIFORMIS.

14869. VICIA SEPIUM.

14870. GOSSYPIUM sp. **Cotton.**

From Cartavio, Peru. Presented by Mr. T. F. Sedgwick, of the Cartavio Sugar Company. Received June 14, 1905.

14871 to 14878. NICOTIANA TABACUM. **Tobacco.**

From Sao Paulo, Brazil. Presented by Dr. H. M. Lane, Mackenzie College. Received June 20, 1905.

Brazilian tobacco seed:

14871. *Georgiana.* From Descalvado, State of Sao Paulo.

14872. From Pirassununga, State of Sao Paulo. Not named, but highly esteemed in the locality.

14873. *Bussucaba.* From near the city of Sao Paulo, State of Sao Paulo.

14874. *Crioula.* From Santa Rita, State of Sao Paulo.

14875. *Fumo Bahia.*

14876. *George Grande.* From the State of Rio de Janeiro.

14877. *Goyana.* Yellow, from the State of Goyaz.

14878. *Goyana.* White, from the State of Goyaz. Doctor Lane says that both the yellow and the white *Goyana* are famous thruout the country.

14879. ZEPHYRANTHES sp.

From San Luis Potosi, Mexico. Presented by Dr. Edward Palmer, thru Dr. J. N. Rose. Received June 19, 1905.

14880 and 14881. VICIA FABA. **Horse bean.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., June 22, 1905.

14880. *Printemps de Lorraine, petite.*

14881. *D'Hiver.*

14882. ZIZYPHUS sp. (?).

From Bulsar, India. Presented by Rev. W. R. Miller, 466 Jackson boulevard, Chicago, Ill. Received June 23, 1905.

14883. MEDICAGO SATIVA. **Alfalfa.**

From Logan, Mont. Received thru Mr. William Carpenter, June 24, 1905.

14884. CINNAMOMUM CAMPHORA. **Camphor.**

From Yokohama, Japan. Received thru L. Boehmer & Co., June 24, 1905.

14885 to 14887. GOSSYPIUM spp. **Cotton.**

From Sydney, New South Wales, Australia. Received thru Mr. J. H. Maiden, director of the Botanic Garden, July 7, 1905.

Cotton seed and samples of lint secured on request from Mr. David Thomatis, Caravonica, Cairns, North Queensland, Australia, April 21, 1905.

14885. *Caravonica I.* (Wool cotton.)

14886. *Peruvian Kidney.*

14887. *Caravonica II.* (Silk cotton.)

14888. NEPHELIUM LITCHI. **Litchi.**

From Honolulu, Hawaii. Received from Mr. G. P. Wilder, thru Mr. James Mills, Arlington Heights Fruit Company, Riverside, Cal., July 10, 1905.

"The tree which bore these fruits is one of the two or three mature trees of this species in Hawaii and is the property of Mrs. Afong. The price of these fruits is about 3 cents each on the retail market of Honolulu. Seeds from Mrs. Afong's trees are being extensively planted in the islands; the demand is likely to be much greater than the supply for many years. It is believed the variety comes fairly true from seed, but in China, where about six distinct sorts are recognized, grafting or inarching is relied upon for best results.

"The yellowish, sweet, pulpy arillus of this fruit is highly esteemed in China, Cochin China, and the Philippines. It also fruits in East Australia, and it can undoubtedly be grown with profit in Porto Rico, south Florida, and California.

"The fruit resembles a strawberry or large acorn in size and shape but has a shell-like, rough skin; the pulp is white, very juicy, and of a peculiar sweet and sour flavor, the taste for which does not have to be acquired." (*Wilder.*)

14889 and 14890. PERSEA GRATISSIMA. **Avocado.**

From City of Mexico, Mexico. Presented by the American ambassador. Received July 13, 1905.

14889. *Seedless.*

14890. *Seedless Butter.*

14891. SOLANUM MURICATUM (?). **Pepino.**

From Port of Spain, Trinidad. Received thru Mr. Eugene André, July 7, 1905.

14892. (Undetermined.)

From Kongo Free State, Africa. Presented by the director of the Botanical Garden at Eala, thru the Department of Finances, Brussels, Belgium. Received July 17, 1905.

A wild ornamental recently discovered in the Kwango Oriental district of the Lower Kongo, Kongo Free State.

14893 and 14895. SOLANUM TUBEROSUM. **Potato.**

From Quito, Ecuador. Presented by Mr. L. Martines, chief of the Department of Public Instruction, Section of Agriculture.

Seed potatoes.

14893. *Chola.*

From the "El Obraje" estate, Señor Luis F. López Ortega, proprietor, parish of Chillogallo, Province of Pichincha, 2,900 meters above sea level. (No. 1.)

14894. *Uchu-rumi.*

From the "Carrión" estate, Señor Carlos Mateus, proprietor, parish of Lloa, Province of Pichincha, 2,900 meters above sea level. Grown in alluvial soil. (No. 2.)

14895. *Chola.*

Grown on same estate as preceding, at the base of Pichincha volcano, 2,900 meters above sea level, in dark, heavy soil. (No. 3.)

14896 to 14906.

From Richmond, New South Wales. Presented by Mr. H. W. Potts, principal of the Hawkesbury Agricultural College. Received June 26, 1905.

14896. ANDROPOGON AFFINIS.

14897. ERAGROSTIS BROWNII INTERRUPTA.

14898. ERAGROSTIS LEPTOSTACHYA.

14899. ERAGROSTIS PILOSA.

14900. STERCULIA DIVERSIFOLIA.

14901. EHRHARTA STIPOIDES.

14902. PANICUM EFFUSUM.

14903. PANICUM SANGUINALE.

14904. PASPALUM BREVIFOLIUM.

14905. CHAETOCHLOA GLAUCA.

14906. STIPA TUCKERI.

14907. CITRUS DECUMANA. **Pomelo.**

From Oneco, Fla. Received thru Reasoner Brothers, July 3, 1905.

Stick's Tresca Red.

14908. PHYSALIS EDULIS. **Cape gooseberry.**

From Cape Town, South Africa. Presented by Prof. C. P. Lounsbury, government entomologist, Cape of Good Hope Department of Agriculture. Received June 26, 1905.

"The mother plantation is at Wynberg, here in the Cape Peninsula. The plant with us is a perennial, but the frost will cut it down. In some districts it fruits well; in others, scarcely at all. It seems to do best on the border of woodlands. A species of Tetranychus is its one great pest in South Africa. Mr. Malley tells me that his brother has tried it in Texas without success." (*Lounsbury.*)

14909 to 14921. ZEA MAYS. **Popcorn.**

From Santiago, Chile. Presented by Señor Salvador Izquierdo, Santa Ines, near Santiago. Received June 23, 1905.

"Samples of popcorn used in Chile for the manufacture of 'llalli.' Samples were without names or specific data other than the above." (*Fairchild.*)

14922. THYSANOLAENA AGROSTIS.

From Calcutta, India. Presented by A. Gage, officiating superintendent, Royal Botanic Garden, Sibpur, near Calcutta. Received June 24, 1905.

See S. P. I. No. 8445, for a description of this unusually beautiful ornamental cane.

14923 to 14944. OPUNTIA sp. **Tuna.**

From San Luis Potosi, Mexico. Received from Dr. Edward Palmer thru Dr. J. N. Rose, of the United States National Museum, June, 1905.

14923. *Pachona.*
14924. *Pasteada Lisa.*
14925. *Narancow Lisa* (spineless.)
14926. *San Juanara Manzana,* blanca.
14927. *Cameosa Lisa.*
14928. *Tuna Blanca Seca.*
14929. (No label.)
14930. *Morada.*
14931. (Spineless.)
14932. (No label.)
14933. (No label.)
14934. (No label.)
14935. (No label.)
14936. (No label.)
14937. (Doctor Rose's No. 613/05.)
14938. (Doctor Rose's No. 614/05.)
14939. *Ranchera* (Doctor Rose's No. 643/05).
14940. *Cueja* (Doctor Rose's No. 644/05).
14941. (Doctor Rose's No. 646/05.)
14942. *Camuesa Prisco* (Doctor Rose's No. 673/05).
14943. *Mansa Color de Rosa* (Doctor Rose's No. 674/05).
14944. *Crystalina Blanca* (Doctor Rose's No. 675/05).

14945 and 14946. GOSSYPIUM sp. **Cotton.**

From Payta, Peru. Received thru Duncan, Fox & Co., July 3, 1905.

14945. Brown seed.
14946. White seed.

14947. CUCURBITA MELANOSPERMA.

From San Luis Potosi, Mexico. Presented by Dr. Edward Palmer. Received June 22, 1905.

"One fruit called '*Cila callote*' from a vine that is very productive. The fruit keeps several months. Fine preserves are made from it—one from the interior after the seeds are removed, another in the ordinary way, the third a hard marmalade. If the seeds are sent to some suitable experiment station with long seasons, they will be as useful as in Mexico." (*Palmer.*)

14948. LAPAGERIA ROSEA. **Chilean bellflower.**

From Coronel, Chile. Presented by Mr. Teodoro Finger, of La Compania de Aranco (Limited). Received July 3, 1905.

"The plant is a creeper, evergreen and lasting, growing up the highest trees and covering the same entirely with its foliage, and in winter the most beautiful scarlet-red big bell-like blossoms make it the favorite Chilean flower for the sight and decoration when no other flowers are blooming. It has given to the Chilean forests a peculiarly attractive and beautiful appearance, being mentioned by almost every traveler. It grows on any soil, preferring heavy red-clay soil. It requires fair watering. It always climbs up a bushy shrub or on a tree. You can sow it in spring, and it stands a light frost without danger. It is entirely an ornamental plant. The roots go down very deep and form a potato at the end, which causes the death of the plant if it is cut off at transplanting. The plants have been taken to Europe, and especially are they grown in hothouses and winter gardens in England. It has caused attention that the plants transplanted to Europe, giving once red blossoms, will never give red blossoms again, but only white ones. It is very difficult to get ripe seeds in the virgin forests, as the birds are very fond of them. The seeds are covered with a small cucumber-like and a little sourish-tasting mass, which the natives like to eat. I find no pleasant taste in them at all." (*Finger.*)

14949 to 14951. OPUNTIA spp. **Tuna.**

From San Luis Potosi, Mexico. Received from Dr. Edward Palmer, thru Mr. W. E. Safford, of the Bureau of Plant Industry, June, 1905.

14949. *Tapona.* Red, globular fruit.

14950. *Cardona.* Yellow fruit.

14951. (An unnamed variety; has thick, tuberculated root.)

14952 to 14962.

From Shanghai, China. Presented by Mr. Edward S. Little. Received in May, 1905.

14952. GLYCINE HISPIDA. **Soy bean.**

Black.

14953. GLYCINE HISPIDA. **Soy bean.**

Large yellow.

14954. GLYCINE HISPIDA. **Soy bean.**

Small yellow.

14955. PANICUM MILIACEUM. **Broom-corn millet.**

Red.

14956. PANICUM MILIACEUM. **Broom-corn millet.**

White.

14957. BRASSICA CHINENSIS. **Chinese rape.**

14958. SESAMUM INDICUM. **Sesame.**

Black.

14959. SESAMUM INDICUM. **Sesame.**

White.

14960. PHASEOLUS RADIATUS. **Mung bean.**

14961. ARACHIS HYPOGAEA. **Peanut.**

Small.

14962. ARACHIS HYPOGAEA. **Peanut.**

Large.

14963. ORYZA SATIVA. **Rice.**

From Kobe, Japan. Presented by Mr. K. Ojuni, custom-house, Kobe, Japan. Received April 17, 1905.

14964 to 14971.

From Kashmir, India. Received thru the Office of Farm Management Investigations, July 8, 1905. Seeds collected by Messrs. Ellsworth Huntington and R. L. Barrett.

14964. HORDEUM VULGARE. **Barley.**

"Barley from Sonamarg, in the Sind Valley, Kashmir. Altitude, 8,500 feet; rainfall, probably 50 inches." (*Huntington.*)

14965. HORDEUM VULGARE. **Barley.**

Hull-less. "From Dras, in the Indus Valley, India. Altitude, 10,100 feet; rainfall, probably about 30 inches, mostly as snow. Irrigation is practised. Snow was 6 feet deep April 13, and lasts till well into May." (*Huntington.*)

14966. LATHYRUS sp.

From Dras, in the Indus Valley, India.

14967. ORYZA SATIVA. **Rice.**

"From Kund, in the Sind Valley, Kashmir, India. Elevation, 6,800 feet. The climate of this region is so severe that on April 7, 1905, after an unusually hard winter, the ground was still well covered with snow. The rainfall of the region is perhaps 40 to 50 inches, well distributed thruout the year." (*Huntington.*)

14968. PANICUM MILIACEUM. **Broom-corn millet.**

"From Kulan in the Sind Valley, Kashmir, India. Altitude, 7,200 feet. Precipitation, about 40 inches. Snow lasts till April." (*Huntington.*)

14969. FAGOPYRUM TATARICUM. **Buckwheat.**

"Hindustani '*trumba*,' from Kund, in the Sind Valley, Kashmir, India. Altitude, 6,800 feet. The climate of this region is such that on April 7, 1905, after an unusually severe winter, the ground was still well covered with snow. This grain is said to make good bread, tho slightly bitter. The rainfall of the region is perhaps 40 inches or more, well distributed thruout the year." (*Huntington.*)

14970. TRITICUM VULGARE. **Wheat.**

"From Tashgam, Indus Valley, India. Rainfall from 25 to 30 inches, mostly as snow. Irrigation necessary. Snow lasts till middle of April." (*Huntington.*)

14971. ZEA MAYS. **Corn.**

"From Kund, in the Sind Valley, Kashmir, India. Altitude, 6,800 feet. The rainfall of the region is perhaps 40 to 50 inches, well distributed thruout the year. The climate of this region is such that on April 7, 1905, after an unusually severe winter, the ground was still covered with snow." (*Huntington.*)

14972 and 14973.

From Quito, Ecuador. Presented by L. Martines, chief of the Department of Public Instruction, Section of Agriculture. Received July 13, 1905.

14972. MEDICAGO SATIVA. **Alfalfa.**

From Guanando district, Province of Chimborazo, 2,400 meters above sea level.

14973. SOLANUM TUBEROSUM. **Potato.**

Chauca. White and black. Early variety from Hacienda Magdalena, Province of Imbabura, 2,225 meters above sea level.

14974 and 14975.

From Sao Paulo, Brazil. Presented by Dr. H. M. Lane, July 25, 1905.

14974. Phaseolus lunatus. **Lima bean.**

Grown in Batataes. Doctor Lane says that these are the most wonderfully prolific pole beans he ever saw.

14975. Nicotiana tabacum. **Tobacco.**

Seed from Goyaz. Doctor Lane is afraid it is a mixt lot, as the friend who sent it wrote: "It contains the best varieties grown in the State. The *White*, *Yellow*, and *Giant* can easily be distinguished in the plants."

14976 to 14979. Nicotiana tabacum. **Tobacco.**

From Cachoeira, Bahia, Brazil. Received from Mr. W. A. Waddell, July 28, 1905. Sent at the request of Dr. H. M. Lane, of Sao Paulo.

14976. Seed from Santa Estevao.

14977. Seed from Outeiro Redendo.

14978. Seed from Cabeças de Murityba.

14979. Seed from Cruz das Almas.

14980 to 14983. Opuntia spp. **Prickly pear.**

From Tunis, North Africa. Received thru the director of the Tunisian Department of Agriculture and Commerce, July 28, 1905.

14980. Opuntia ficus-indica.

14981. Opuntia tuna.

14982. Opuntia ficus-indica inermis.

14983. Opuntia robusta.

14984 to 14989.

From Cape Town, South Africa. Received thru the Smithsonian Institution, from Mr. H. J. Chalvin, superintendent of the Municipal Gardens, July 29, 1905.

14984. Asparagus crispus.

14985. Freesia refracta alba.

14986. Sparaxis bulbifera.

14987. Sparaxis purpurea.

14988. Synnotia bicolor.

14989. Tritonia fenestrata.

14990 and 14991.

From Paris, France. Received thru Vilmorin-Andrieux & Co., August 10, 1905.

14990. Vicia villosa. **Hairy vetch.**

14991. Hedysarum coronarium. **Sulla.**

14992. Zea mays. **Popcorn.**

From Amboina, Dutch East Indies. Presented by Mr. Roskott. Received August 9, 1905.

14993. Citrus australasica. **Finger lime.**

From Queensland, Australia. Presented to Prof. W. M. Hays, St. Anthony Park, Minn., by Mr. James Pink, of Wellington Point, near Brisbane. Received August 11, 1905,

"It is a fruit which I think capable of great improvement. Nothing has ever been attempted with it here, and I send you a few dried fruits which, I have no doubt, contain good seeds. The plant is a large shrub, very limited in its distribution.

"The fruit when well grown is from 3 to 4 inches long, of a bright orange-crimson color, and of excellent flavor." (*Pink.*)

14994. Trifolium incarnatum. **Crimson clover.**

From New York, N. Y. Received thru Henry Nungesser & Co., August 11, 1905.

14995. DAHLIA IMPERIALIS. **Dahlia.**

From Queenstown, Cape Colony. Received thru Mr. F. Beswick, secretary of the Queenstown Public Gardens, August 14, 1905.

14996 to 14998.

From Mexico. Received thru Dr. J. N. Rose, of the United States National Museum, August 14, 1905.

14996. SCHOENOCAULON sp.

14997. JUGLANS sp.

14998. PINGUICULA sp.

14999. EUPATORIUM PORTORICENSE. **"Guerrero."**

From Mayaguez, P. R. Received thru Mr. O. W. Barrett, from the Agricultural Experiment Station, August 15, 1905.

"A shrub, 1 to 3 meters high, found in a semicultivated state in the western part of Porto Rico. The dried leaves have a strong vanilla-like fragrance and are used in scenting the better grades of Porto Rican tobacco. Tho a perennial, this plant will probably fruit in the latitude of Connecticut; it is a very rapid grower." (*Barrett.*)

15000 to 15210. PHOENIX DACTYLIFERA. **Date.**

From Tunis, North Africa. Received thru Mr. Thomas H. Kearney, agricultural explorer, who secured them during his explorations in the winter of 1904–5 in the oases of southern Tunis.

"The nomenclature is that secured by Mr. Kearney from the Arabs from whom he bought the suckers, and the descriptions were made partly in Tunis and partly after his return to this country. See his bulletin on the date palms of Tunis." (*Fairchild.*)

15000. *Ammary.*

A third-class "soft" variety; fruit 1¼ to a little over 1½ inches long, about one-half as wide, generally obovoid, square at the base, rounded at the apex, keeping its shape fairly well when preserved, dark-brown purple when ripe; the flesh 1½ lines thick, very soft and dark colored; the seed about two-thirds as long as the fruit, about two-fifths as wide as long, blunt at both ends. The stalks and branches of the fruit clusters are orange colored.

The earliest maturing variety in Tunis, ripening in August and September. Said to give a very good crop every year and to be very productive.

15001. *Angoo.*

A second-class "dry" variety; fruit barely 1 inch long, about seven-tenths as wide, sometimes broadest below, sometimes above the middle; bright bay-colored when ripe, much of the skin becoming loosened in large blisters, the flesh a little over 1 line thick, becoming firm and dry, the white central portion thicker than the dark-colored outer zone; the seed about two-thirds as long as the fruit, about one-half as wide as long, light-drab brown. The stalks of the fruit clusters are lemon yellow.

The smallest fruited of the Tunisian varieties. Despite its diminutive size and thin flesh, this little date is one of the most attractive of the "dry" type. Because of its moderately sweet, wholesome, nutty flavor it can be eaten in large quantities without cloying, and should be a healthful food. Ripens in midseason.

15002. *Areshty.*

A first-class "soft" variety; fruit 1⅔ to 2½ inches long, one-half to two-thirds as wide, slightly larger above than below the middle, broad and rounded at the apex, light bay or hazel brown when ripe; the flesh 2½ to 3 lines thick, firm but tender; the seed about one-half as long as the fruit, rather thick, irregularly roughened. The stalks and branches of the fruit clusters are light orange. The foliage of this variety is rather light and the leaves drooping.

One of the largest dates grown in Tunis. The fruit is generally egg-shaped, ripening about the middle of October. The flavor of the thoroly ripe fruit is agreeable, altho not very remarkable, wholesome, nut-like, and not easily cloying. The flesh becomes quite firm and the ripe fruit keeps its shape well when preserved.

15000 to 15210—Continued.

15003. *Baydh Hammam.*

A second-class "soft" variety; fruit 1⅔ to 1¾ inches long, three-eighths to five-eighths as wide, egg-shaped, broadest near the middle, rather conspicuously blunt-pointed at apex, not keeping its shape well, dark chestnut brown with a tinge of maroon when ripe; the flesh very soft and dark colored, about 2 lines thick; the seed one-half to five-eighths as long as the fruit, one-third to two-fifths as wide as long; dark brown. The stalks and branches of the fruit clusters are orange colored. The foliage is of a rather delicate aspect and the leaves numerous.

This is a handsome, dark-brown date with very soft, dark-colored flesh. It is always eaten fresh, not being conservable. It is exceedingly sweet. The flavor of the perfectly ripe fruit is agreeable and very characteristic. It ripens rather late, hardly before November.

15004. *Bayjoo*, or *Badjou.*

A third-class "dry" date; fruit 1⅓ inches long, about two-thirds as wide, ovoid, purplish maroon or bay colored when ripe; the flesh 1½ lines thick; the seed nearly two-thirds as long as the fruit, one-half as wide as long; light brown. The stalks and branches of the fruit clusters are pale orange colored. The small, dense bunches of fruit hang down on long curved stalks.

Flavor nutty, agreeable but not very characteristic, typical of the "dry" date class. Matures in October.

15005. *Bent Segny.*

A third-class "soft" variety; fruit 1¾ to 1⅞ inches long, about one-half as wide, obovoid, square at base, rounded at apex, keeping its shape poorly when preserved, very dark purplish brown (almost black) when ripe; the flesh 1½ lines thick, very dark colored and very soft; the seed about one-half as long as the fruit, two-fifths to one-half as wide as long, rounded at both ends. The stalks and branches of the fruit clusters are deep orange colored.

A very soft, sirupy date, with a pleasant but not remarkable flavor. Ripens about the end of October.

15006. *Besser Haloo*, or *Bisra Haloua.*

A second-class "soft" variety; fruit 1⅓ to 1½ inches long, about two-thirds as wide, broadest at or above the middle, rounded at the apex, keeping its shape well when ripe, bright bay colored; the flesh 2 lines thick, comparatively dry when the fruit is ripe, light brown; the seed two-thirds to three-fourths as long as the fruit, generally two-fifths as wide as long, with more or less conspicuous winglike ridges on the sides. The spreading or ascending stalks of the fruit clusters are so short that the small bunches are nearly hidden by the foliage. The leaves are short and rather stiff, with comparatively short stalks and wide leaflets.

A small, light-colored date, with thick, comparatively firm flesh. It is very sweet and has an agreeable flavor, somewhat intermediate between that of Lagoo and that of Horra. The natives seem to prefer it when not perfectly ripe. It matures early in October. One of the six most productive varieties. Among the four most salt-resistant varieties.

15007. *Boo Affar.*

A first-class "soft" date; fruit about 2 inches long and five-ninths to three-fifths as wide, conspicuously wider above than below the middle, but narrowed to the blunt apex, bright purplish maroon when ripe; the flesh 3 to 3½ lines thick, tender yet firm; the seeds a little more than one-half as long as the fruit, cinnamon brown. The stalks and branches of the fruit clusters are deep orange. The foliage is said to be heavy and the leaves wide and very green.

The fruit is remarkable not only for its large size, thick flesh, and delicious flavor, but for its beautiful coloring; ripens rather late. The flesh is tender, yet rather firm, and is very sweet and full of sugar. The skin, even of the ripe fruit, is fairly clean and dry.

15008. *Boo Fagoos;* also spelled *Bou Fagous*, or *Feggouss.*

A first-class date of the "soft" type; fruit 1⅔ to 1⅞ inches long, considerably more than one-half as wide, constricted near the middle and widest toward the apex, maroon to prune purple when ripe; the flesh 2½ lines thick; the seed

15000 to 15210—Continued.

five-ninths to five-eighths as long as the fruit, rather slender. The orange-colored stalks of the fruit clusters are sharply curved, and so short that the rather small bunches hardly extend beyond the leafstalks.

The foliage of this, as of several other of the finest varieties, is of a light and delicate aspect, due in this case to the relatively few leaves and the narrowness of the leaflets. The leaves themselves are large and wide, curving downward very noticeably.

The large fruit is remarkable for its unusual shape, somewhat like that of a fiddle or of some of the varieties of gherkins, to which it doubtless owes its Arabic name. The flesh is thick and rather firm, yet tender. It is very sweet and has a very distinctive and highly attractive flavor. It ripens late in October.

15009. *Deglet Barca.*

Fruit said to be "soft," round, and nearly black. It is described as a soft date that preserves very well.

15010. *Deglet Caid.*

Fruit coral red before maturity, and black when ripe; said to be conservable only for a short time. Reported to be a fine variety and to ripen early in September.

15011 and 15012. *Deglet Noor.*

A first-class "soft" date; fruit 1⅓ to a little over 2 inches long and about one-half as wide, ovoid oblong in shape, generally widest at or near the middle and blunt pointed at the apex, often narrowed also at the base, maroon colored when ripe; the flesh 2 to 3 lines thick, translucent; the seed about five-ninths as long as the fruit, conspicuously pointed, and dark chestnut brown in color. The stalks and branches of the fruit clusters are bright yellow (not orange), with stalks long and slender, sharply curved near the base, so that the bunches hang down far below the crown of foliage.

The Deglet Noor presents a combination of characteristics—fine flavor, sweetness, attractive appearance, cleanliness, good keeping qualities—that can be rivaled by no other variety that is widely grown. It requires a high sum total of temperature to bring it to perfect maturity; begins to ripen in quantity toward the end of October, slower in coming into full bearing than most varieties, the palms generally not giving a good crop until they are 10 years old, producing largely only every second or third year.

15013. *Deglet Sennaga.*

A "soft" date; fruit 37.5 to 40 mm. long, 17.5 mm. wide, oblong, somewhat pointed at the apex, bright chestnut brown when ripe, surface shining, skin much loosened and folded; flesh soft, dark colored; seed large, dark brown; very sweet; flavor distinctive (suggesting burnt sugar) and rather agreeable, but not very pronounced. It is said to keep well.

15014. *Dokar.* (Early, male.)

15015. *Dokar.* (Medium, male.)

15016. *Dokar.* (Late, male.)

15017. *Doonga*, or *Denanga.*

A second-class "soft" date; fruit a little over 1½ inches long, six-tenths to seven-tenths as wide, egg-shaped, broadest near the base, dull dark purplish maroon when ripe; the flesh 1½ to 2 lines thick, firm white, central portion nearly as thick as the dark outer zone; seeds small and thick (only about one-half as long as the fruit and about one-half as wide as long), narrowed at both ends. The stalks and branches of the fruit clusters are light orange.

A dark-colored, rather small date, with moderately soft, dark-colored flesh and with a clean, dry skin. It is very sweet and of a fine flavor, suggesting that of Deglet Noor.

15018. *Fteemy*, or *Ftimi.*

A first-class "soft" date; fruit 1⅔ to 2 inches long, about one-half as wide, oblong, slightly narrowed at both ends, dark purplish maroon when ripe, the surface shining, the flesh soft and sirupy, about 2 lines thick, the seed about

15000 to 15210—Continued.

five-ninths as long as the fruit, slender. The foliage is luxuriant, and the numerous leaves are long, wide, and crowded with long, broad leaflets. In color they are decidedly bluish, owing to the presence of a heavy, white bloom.

Altho inferior in flavor to the Deglet Noor this is unquestionably an excellent variety, greatly excelling the Deglet Noor in vigor, rapid growth, early productiveness, and large yields. The oblong fruit, when ripe, is of fine reddish purple color, very rich in flavor, extremely sweet, and so soft and sirupy as to melt in the mouth when fresh. It can not be eaten in great quantity, however, without cloying. It becomes very sticky and is therefore less satisfactory as a dessert fruit than the Deglet Noor. This variety is considered one of the most productive, giving a good crop every year. Is a late ripening variety, its fruit beginning to mature in quantity at the same time as the Deglet Noor, about November 1. It ranks among the four most alkali-resistant varieties.

15019. *Gasby.*

A third-class "soft" variety; fruit 1⅞ to a little over 2 inches long, about two-fifths as wide, oblong, often conspicuously curved, very dark prune purple, with a conspicuous bloom when ripe, the surface dull, the skin rather tough, russet brown where loosened from the flesh; the flesh 1 line thick, dark colored, remaining rather soft; the slender seed five-ninths to three-fifths as long as the fruit, two-sevenths to one-third as wide as long, russet brown, often curved. The stalks and branches of the fruit clusters are deep orange colored.

Ripens very early. A handsome, long, dark-colored, generally curved date. Flavor is of the Lagoo type, rather attractive, suggesting that of raisins. It is said to keep very well.

15020. *Gasb Haloo.*

Fruit said to resemble Kenteeshy in color; described as sweeter and better flavored than Gasby.

15021. *Guern-el-Rhezal.*

Said to be a long, slender, curved date, with a stone unusually large and a thin flesh.

15022. *Goondy.*

A third-class "soft" variety; fruit about 1⅔ inches long, about one-half as wide, obovoid-oblong, keeping its shape fairly well when preserved, bay to maroon colored when ripe; the flesh about 1½ lines thick, dark colored, remaining rather soft, the seed five-eighths as long as the fruit, about one-third as wide as long. The stalks and branches of the fruit clusters are bright orange colored. Said to ripen as early as September 15.

Sweet and agreeable, but not of pronounced flavor; of the Lagoo type.

15023. *Holooa Bayda;* also *Halouaia.*

A second-class "dry" date; fruit 1⅓ to 1½ inches long, about one-half as wide, elliptical in outline, not conspicuously narrowed at the apex, widest near the middle, dull purplish bay when ripe; the flesh 1 to 1½ lines thick, becoming very firm and dry; the seed about seven-tenths as long as the fruit and one-third to two-fifths as wide as long. The branches of the fruit clusters are pale orange.

Much like the Lemsy, but the fruit is even smaller. It ripens rather early and is generally eaten fresh, becoming hard and dry when preserved.

15024. *Halouaia.*

15025. *Hamra,* or *Hamraia.*

A third-class "dry" date; fruit 1¼ to 2 inches long, about one-half as wide, ovoid, tapering from near the base to the rounded apex, bright purplish maroon when ripe; the flesh 1 to 3 lines thick, becoming quite firm, the dark-colored outer zone thicker than the white central portion; the seed two-thirds to four-fifths as long as the fruit, generally about two-fifths as wide as long, sometimes with strongly developed winglike ridges on the sides. The stalks and branches of the fruit clusters are orange colored.

One of the largest and most showy of the "dry" dates. Much resembles Horra

15000 to 15210—Continued.

and surpasses it in brightness of color, but is decidedly inferior to it in flavor. Ripens in the latter part of October and the beginning of November. Said to keep well.

15026. *Horra.*

The name is also spelled "Hourra," "Harra," and "Herra."

A first-class "dry" date; fruit about 2 inches long, about one-half as wide, ovate, narrowed from the base to the rounded apex, rather dull purplish maroon when ripe, the flesh 2 to 2½ lines thick, with its white central zone much thicker than the dark outer portion, the seed usually about one-half as long as the fruit. The stalks and branches of the fruit clusters are orange yellow. The leaves are large, with very numerous slender leaflets.

The fruit is the largest and finest produced by any variety of the "dry" class. The flesh becomes quite solid in the ripe fruit, but is never extremely hard and dry. It has the characteristic nutty flavor of the dry dates, but is much richer than most of them. It is at its best only when perfectly mature and is one of the best keeping varieties. A medium-early sort, ripening in October.

15027. *Iteema*, or *Ytima.*

A third-class "soft" variety; fruit slightly over 2 inches long, about one-half as wide, widest at or near the middle, rounded at the base, somewhat pointed and conspicuously unsymmetrical at apex, not keeping its shape well when preserved, chestnut brown, with a slight purple tinge when ripe, the surface shining, the flesh over 2 lines thick, extremely soft, the seed nearly one-half as long as the fruit, about two-fifths as wide as long, chestnut colored.

A very handsome date, with sirupy, translucent flesh, extremely sweet, rather insipid in flavor. Early ripening sort. Is eaten fresh.

15028. *Karooy.*

A third-class "soft" variety; fruit 1⅝ inches long, about one-half as wide, ovoid, narrowed from near the base to the rounded apex, keeping its shape fairly well when preserved, bay colored when ripe; skin, where loose, olive brown; the flesh about 1½ lines thick, rather tough; the seed about five-eighths as long as the fruit, about one-third as wide as long. The branches and stalks of the fruit clusters are orange colored.

Flesh rather tough, moderately sweet, flavor agreeable, similar to that of the "dry" dates.

15029. *Kenta.*

A first-class "dry" date, fruit 1⅓ to 1⅝ inches long, about one-half as wide, narrowed from the middle or above it to the broad apex, dull bay colored when ripe, much of the skin loosened in large blisters in the ripe fruit, the flesh 1½ to 2 lines thick, the seed four-sevenths to five-eighths as long as the fruit, rounded at both ends, light brown.

The leaves of this variety are rather broad, with numerous long, narrow leaflets. The light-orange stalks of the fruit clusters are stout and horizontal or ascending, and so short that with the bunches they do not equal the leaf-stalks. The clusters themselves are short, thick, and densely crowded with fruit.

One of the most highly esteemed and widely grown of the dry dates found in Tunis. The fruit is of medium size, the flesh rather thin, becoming quite firm, altho not very dry. The surface is clean and dry even when the fruit is quite ripe. It is not sirupy, altho pleasantly sweet, and can be eaten in quantity without cloying. The flavor is very agreeable, wholesome, and of the nutty quality characteristic of most dry dates. One of the best of the dry dates in keeping quality. Is a comparatively early-ripening variety, maturing about the middle of October and perhaps earlier. One of the two most productive varieties, said to give an abundant crop every year. Said to be the most salt-resistant variety in high-lying, well-drained land.

15030. *Kenteeshy*, or *Kentichi.*

A third-class "dry" variety; fruit about 1½ inches long, slightly more than one-half as wide, oblong or slightly obovoid; dull bay when ripe, the skin remaining yellow; the flesh 1 to 2½ lines thick, becoming hard and dry; the

15000 to 15210—Continued.

seed about two-thirds as long as the fruit, one-third to two-fifths as wide as long, broad and rounded at both ends. The stalks and branches of the fruit clusters are dull orange. The stalks are curved, forming nearly a semicircle, but do not hang down below the foliage.

Fruit is small, thin of flesh, and becomes hard and dry almost before it has lost its astringency. It ripens toward the end of October and beginning of November. Moderately sweet and rather tasteless. Yields heavily, being one of the most productive varieties found in Tunis, and is said to give a good crop every year. Reputed to be very alkali resistant.

15031. *Khadraya.*

A "dry" date; fruit 35 to 40 mm. long, 17.5 mm. wide, oblong, narrowed at the apex, bright orange before maturity, dull light brown when ripe; seed large, light brown. Branches of fruit clusters bright orange. Very sweet, with a pleasant flavor. Ripens in October.

15032. *Khalt* (?).

15033. *Khalt Boo Fagoos.*

A "soft" date; very similar to Boo Fagoos, 42.5 mm. long, 25 mm. wide, generally more or less obovoid, maroon colored when ripe, skin much folded; flesh very firm; seed large. Branches of fruit clusters light orange.

Moderately sweet, with a fine flavor of the Horra type.

15034. *Khalt Deglaowia.*

A second-class date of the "soft" type; fruit $1\frac{2}{3}$ to $1\frac{3}{4}$ inches long, about one-half as wide, egg-shaped, narrowed from about the middle to the rounded apex, keeping its shape well when preserved, dark maroon purple when ripe, much of the skin loosened into soft blisters; the flesh about 2 lines thick, firm yet tender; the seed about two-fifths as long as the fruit, about one-third as wide as long, cinnamon brown. The stalks and branches of the fruit clusters are light yellow.

The fruit is rather small, with fairly thick, firm flesh. The fine flavor suggests that of Deglet Noor, which it resembles also in the shape of the fruit and the maize-yellow color of the branches of the clusters.

15035. *Khalt Gama.*

"Gama" means wheat, and is said to refer to the color of the fruit.

15036. *Khalt Hameed.*

A third-class "soft" variety; fruit $1\frac{2}{3}$ inches long, about one-half as wide, ellipsoidal, generally slightly narrowed at both ends, keeping its shape well when preserved, bright maroon when ripe; the flesh $1\frac{1}{2}$ lines thick, rather firm, not very sugary; the seed smooth, five-eighths as long as the fruit, about two-fifths as wide as long, widest above the middle.

15037. *Khalt Harraowia.*

A second-class "soft" date; fruit $1\frac{7}{8}$ to over 2 inches long, narrowed from near the base to the somewhat pointed apex, keeping its shape well when preserved, dark-maroon purple when ripe; the flesh 2 to 3 lines thick, firm yet tender, very sugary; the seed one-half to five-ninths as long as the fruit, about one-third as wide as long. The branches of the fruit clusters are orange colored. The crown of foliage is well developed, the leaves large, and the leaflets long and numerous.

The large, handsome fruit somewhat resembles that of Horra, both in appearance and flavor. The flesh is copious, firm yet tender, and contains a great deal of sugar.

15038. *Khalt Kebeer.*

A fine, large, reddish brown "soft" date, with small seed, preserving admirably; flavor excellent.

15039. *Khalt Kentaowia.*

Occurs in the Jerid; apparently not uncommon at Tozer.

15000 to 15210—Continued.

15040 *Khalt Mooashem.*

A second-class "soft" date; fruit 1⅔ to 1⅞ inches long, about one-half as wide, egg-shaped, narrowed from about the middle to the rounded apex, keeping its shape perfectly when preserved; dark prune purple when ripe, the skin mostly adhering very closely to the flesh, conspicuously marked with transverse and longitudinal scars; the flesh about 2 lines thick, firm yet tender; the seed about one-half as long as the fruit, nearly one-half as wide as long, broadest near the middle, light brown, rough. The branches of the fruit clusters are bright orange.

The excellent fruit is characterized by its dark prune color, curiously scarred skin, copious soft flesh, and very sweet, highly attractive flavor. Apparently keeps perfectly.

15041. *Kharooby*, or *Kharroubi.*

A third-class "soft" variety; fruit about 2 inches long, less than two-fifths as wide, oblong, often somewhat wider near the apex than elsewhere, between bay and maroon colored when ripe, the surface shining; the skin conspicuously loosened and remaining light yellow; the flesh 1 to 2 lines thick, rather soft and dark colored; the seed nearly three-fifths as long as the fruit, one-third as wide as long, generally somewhat curved. The stalks and branches of the fruit clusters are orange colored.

Flesh of the ripe fruit of the consistency of jelly, moderately sweet, agreeable in flavor, resembling Lagoo. Said to preserve well. Ripens in October.

15042. *Kseba*, or (?) *Kessebi.*

A second-class "dry" variety; fruit about 1½ inches long, two-thirds as wide, ovoid or oblong-ovoid, widest below the middle, purplish maroon or bay when ripe; the flesh 2 to 2½ lines thick, firm but tender; the seed very nearly two-thirds as long as the fruit, two-fifths as wide as long, russet brown. The branches of the fruit clusters are deep orange. The foliage is characterized by having few spines and these are slender and weak.

The fruit, which preserves well, is very sweet and well flavored, in the latter respect being intermediate between Horra and Lagoo. Its fruits ripen in October.

15043. *Lagoo.*

A second-class "soft" date; fruit nearly 2 inches long, four-ninths as wide, oblong, tapering slightly to the apex, more or less curved, bay to light maroon colored when ripe, the surface somewhat shining; the flesh about 2 lines thick, rather tough, dark colored; the seeds slender, three-fifths to two-thirds as long as the fruit, two-sevenths to one-third as wide as long, russet brown, its surface roughened with fine wrinkles. The stalks and branches of the fruit clusters are orange colored, the crown of foliage is rather small, the leaves short and rather thick, with long, rather wide leaflets.

One of the earliest kinds; said to ripen by the middle of September. The fruit is of medium length, narrow, and dark colored when ripe. The flesh is rather thin, but soft, very sweet, and of an agreeable, characteristic flavor, somewhat resembling Rhars. It keeps well.

15044. *Lemsy.*

A second-class "dry" date; fruit 1½ to 1⅔ inches long, about one-half as wide, elliptical in outline, not conspicuously narrowed toward the apex, often slightly curved, dull purplish maroon when ripe; the flesh 1 to 2 lines thick, becoming very firm and dry; the seed about two-thirds as long as the fruit, generally one-third as wide as long. The branches of the fruit clusters are orange colored.

This is a small, thin-fleshed dry date, sometimes preserved, but usually eaten fresh and even before it is perfectly ripe, as the flesh soon becomes dry and hard. It is deliciously sweet and has a fine flavor, tasting somewhat like chestnuts. Said to mature at the end of August.

15045. *Menakher.*

A first-class date of the "soft" type; fruit 2 to 2⅓ inches long, about one-half as wide, oblong, broad, and rounded at both ends, keeping its shape well when preserved; brownish maroon when ripe; the flesh 2 to 2½ lines thick;

15000 to 15210—Continued.

the seed broad at both ends, about one-half as long as the fruit, one-half as wide as long, very rough.

The leaves are long and broad, and rather stiff and heavy, crowded with very numerous long leaflets, and their stalks are armed almost thruout their length with long, stout spines. The fruit clusters are short and dense, their stalks bright yellow, rather short, stout, and only moderately curved, so that the bundles do not hang down below the leaves as in the Deglet Noor, but are almost hidden by the foliage.

This produces fruit that is thought by many of the natives, and even by some of the few Europeans who have tasted it, to surpass the Deglet Noor; is at least equal in quality to the Deglet Noor, which it considerably resembles in flavor. In size Menakher dates are 1½ to nearly 2 times as large as those of the Deglet Noor variety; in color they are generally darker. The seed, tho thick, is short in proportion to the length of the fruit. It is very different in appearance from that of the Deglet Noor. The thick, translucent flesh, altho soft and sirupy, becomes firm when preserved, just as does that of the Deglet Noor. If preserved with any care Menakher dates keep their shape admirably. The skin does not become sticky but remains dry and clean, which is a very desirable property in a dessert fruit. An objectionable feature is the strong development of the white, stringy core. This diminishes perceptibly, however, in thoroly ripe fruit. The consensus of opinion is that in point of appearance, cleanness of skin, keeping quality, and delicacy of flavor the Menakher dates surpass the Deglet Noor, while the latter are superior in the crisper texture of the flesh and small development of the stringy core, or "rag."

This variety ripens its fruits in the latter part of October. It is said to yield little during the first few years after the offshoots are planted, but afterwards surpasses the Deglet Noor in yield, one palm producing sometimes 220 pounds of dates.

15046. *Mokh Begry*, or *Moukh Begri.*

A second-class "soft" variety; fruit 1⅓ to 1½ inches long, about three-fourths as wide, broadest at the base, and narrowed thence to the broad, rounded apex, flattened on the sides, bright bay colored when ripe; the flesh very soft, about 1½ lines thick, rather dark colored, translucent; the seed light brown, one-half to two-thirds as long as the fruit, about twice as long as wide, rounded at both ends. The stalks and branches of the fruit clusters are light orange.

The trees are said not to bear heavily. The dates are rather small and have an unusual shape. The translucent flesh is very soft, but the fruit is said to preserve well. It is very sweet and of delicious flavor, resembling and perhaps equaling the Deglet Noor. Fruit ripens in the latter part of October.

15047. *Okht Ammary.*

Said to resemble Ammary, but to be larger. Reported to ripen at the end of September and not to keep well.

15048. *Okht Fteemy.* (French, *Oukht Ftimi.*)

A second-class "soft" date; fruit 2 to 2⅙ inches long, about two-fifths as wide, oblong, straight, somewhat pointed at the apex, deep purplish maroon when ripe, the surface shining; the flesh 2½ to 3 lines thick, soft; the seed slender, about one-half as long as the fruit, only two-sevenths as wide as long; dark brown. The stalks and branches of the fruit clusters are rich orange. The many fruit clusters are short-stalked and almost hidden by the foliage.

The very handsome fruit is longer and more slender than that of Fteemy, and is often brighter colored, but is otherwise very similar. In regard to flavor, no difference could be detected. Altho very soft and sirupy, the fruits preserve well. Okht Fteemy palms give a good crop every year and are very productive. These dates are not generally ripe before November. Among the most alkali-resistant varieties.

15049. *Remta.*

A third-class "dry" date; fruit 1½ to 1⅔ inches long, about one-half as wide, oblong, somewhat pointed at the apex, generally distinctly constricted a little above the base, dark maroon colored when ripe; the flesh about 1 line thick, rather tough; the seed one-half to two-thirds as long as the fruit,

15000 to 15210—Continued.

a little less than one-half as wide as long. The stalks and branches of the fruit clusters are bright orange.

Flesh firm, moderately sweet, with an agreeable flavor resembling that of Thaby. Said to ripen early.

15050. *Rhars.* (Sometimes known as *Rhars* (or *Ghars* or *Cheress*) *Mettigui.*)

A second-class tho well-known date of the "soft" type; fruit 1⅝ to over 2 inches long, two-fifths to four-ninths as wide, oblong or inversely egg-shaped, bay colored when ripe, its surface somewhat shining; the flesh 2 to 4 lines thick, very soft; the slender seed five-eighths to three-fifths as long as the fruit, two-sevenths to one-third as wide as long, broad and rounded at both ends. The ripe fruit does not keep its shape well when preserved. The stalks and branches of the fruit clusters are bright orange. The trunk is stout and the foliage luxuriant, numerous long leaves being crowded with long, broad leaflets.

One of the earliest. Said to begin to ripen as early as the end of July. The fruit is large, bay colored when ripe, with copious soft, sirupy, translucent flesh, very sweet and rich-flavored. Not one of the best-keeping sorts.

15051. *Sba Aroossa.*

Said to be rare and of fairly good quality. Reported to be a long, slender date, ripening in October and not keeping well.

15052. *Sayba Boo Dra.*

A third-class "soft" variety; fruit 2 to over 2½ inches long, about three-sevenths as wide, oblong, somewhat pointed at the apex, usually curved; prune purple when ripe; the surface rather dull; the flesh 3 and 3½ lines thick, rather firm; the slender seed about one-half as long as the fruit and two-sevenths to one-third as wide as long. The stalks and branches of the fruit clusters are bright orange colored.

The largest of the Tunisian varieties. Flesh thick, rather tough. Flavor agreeable, suggesting Boo Fagoos. Ripens about the end of October.

15053. *Tafazween.* (Also *Tafazaouine*, or *Tafezoween.*)

A first-class "soft" date; fruit 2 to 2⅙ inches long, about two-fifths as wide, oblong, tapering slightly from base to apex, bright bay colored when ripe; the skin conspicuously marked with short linear scars; the flesh 1½ to 2 lines thick; the slender seed about three-fifths as long as the fruit.

The handsome fruit is easily recognized by its long, narrow shape, bright-bay color, and curiously marked skin. It is said to ripen in October. The flesh is soft and translucent, like that of the Deglet Noor. It is very sweet, and of excellent flavor.

15054. *Tantaboosht*, or *Tantaboucht.*

A third-class "soft" date; fruit nearly spherical, usually somewhat wider than long, 1 to 1½ inches in greatest diameter, usually widest above the middle, slightly deprest at apex, not keeping its shape well when preserved, very dark brown purple (almost black) when ripe; the flesh 3 to 5 lines thick, very soft and dark colored; the large seed two-thirds to four-fifths as long as the fruit, one-half to two-thirds as wide as long; smooth. The stalks and branches of the fruit clusters are deep orange colored.

A date remarkable for its round shape and very soft, almost black flesh. Flavor peculiar and characteristic, even perfectly ripe fruit retaining a certain amount of astringency.

15055. *Tenaseen.* (French orthography, *Tanessin*, or *Tenassine.*)

A third-class "soft" variety; fruit 1⅝ to 1⅞ inches long, about one-half as wide, oblong, not keeping its shape well when preserved, black when ripe; the flesh very soft, nearly black; the seed five-ninths to five-eighths as long as the fruit, about one-third as wide as long, rather dark brown.

The flavor of the very sweet, soft, dark-colored flesh suggests Tozer Zaid Safra, but is more agreeable. Is said to ripen in October.

15056. *Thaby*, or *Dzhabi.*

A second-class "dry" variety; fruit 1⅝ inches long or slightly longer, about one-half as wide; oblong, often slightly constricted a little above the base, some-

15000 to 15210—Continued.

what pointed at apex; bright reddish brown when ripe; the flesh 1 to 1½ lines thick, rather tough, the dark-colored outer zone apparently much thicker than the white inner portion. Seed about three-fifths as long as the fruit, rather slender. The stalks and branches of the fruit clusters are rich orange colored.

It is one of the handsomest of the "dry" dates, and one of the most attractive when preserved, keeping perfectly its shape and its beautiful, warm reddish brown color. It has an agreeable, wholesome flavor, and can be eaten in quantity without cloying. It matures in October.

15057. *Towadant.*

Fruit said to be very large and long, yellow, and of good flavor, ripening at the same time as Fteemy and keeping well.

15058. *Tozer Zaid Khala.*

A third-class "soft" variety; fruit 1½ to 1¾ inches long, three-fifths to two-thirds as wide; obovoid or oblong, broad and rounded at apex, not keeping its shape well when preserved; black when ripe; the flesh about 2 lines thick, very soft and sirupy, nearly black; the seed about two-fifths as long as the fruit, about two-fifths as wide as long; dark brown.

Less common than Tozer Zaid Safra, which it very closely resembles in appearance and flavor.

15059. *Tozer Zaid Safra.*

A third-class "soft" date; fruit 1½ to 1⅝ inches long, generally four-sevenths to two-thirds but sometimes only one-half as wide as long; oblong or oblong egg-shaped, widest near the middle, broad and rounded at the apex, not keeping its shape well when preserved; the flesh 1½ lines thick, extremely soft and sirupy; nearly black; the relatively large seed about one-half as long as the fruit, two-fifths to one-half as wide as long, light brown.

Flavor characteristic, much appreciated by the natives. Generally eaten fresh, but sometimes preserved for a short time. Yields heavily. Fruit ripens in the latter part of October. Said to be one of the four salt-resistant varieties.

15060. *Tronja*, or *Troundja.*

A first-class "soft" date; fruit perfectly round, or nearly so, 1½ to nearly 2 inches in greatest diameter; maroon to prune purple when ripe; the flesh 4 to 5 lines thick, very sugary yet firm; the seed very thick, six-tenths to seven-tenths as long as the fruit and about three-fifths as long as wide; much furrowed. The foliage is dense, the leaves wide, crowded with leaflets, and drooping gracefully at the ends.

The fruit, which ripens in October, is remarkable for its large size, the thickness of its flesh, and its globular shape. The short, very thick seed is also characteristic. The flesh is very firm and even somewhat tough, extremely sweet and very rich flavored, the flavor suggesting that of the Fteemy. Tronja dates can not be eaten in large quantities, as their richness soon cloys, but as a dessert fruit they are very promising.

15061. *Zrai.*

Fruit said to resemble Deglet Noor in color.

15062. *Zekry.*

A second-class "soft" date; fruit 1½ to near 1⅝ inches long, about one-half as wide, obovoid, keeping its shape fairly well when preserved, bay to maroon when ripe; the flesh about 1½ lines thick, moderately soft; the seed about four-sevenths as long as the fruit, about two-fifths as wide as long. The stalks and branches of the fruit clusters are orange colored.

When perfectly ripe the flesh, altho rather thin, is soft and very sweet. The flavor is characteristic, suggesting both chestnuts and persimmons. Said to yield heavily.

15063. *Menakher* (?).

15064. *Menakher* (?)

15065 to 15210.

One hundred and forty-six unidentified palms of Mr. Kearney's shipment, which were planted in the Date Garden at Mecca, Cal.

15211. Phoenix dactylifera. **Date.**

From Winters, Cal. Received thru Prof. A. V. Stubenrauch in the spring of 1904. A large male date palm.

15212. Phoenix dactylifera. **Date.**

From Pomona, Cal. Secured by Prof. A. V. Stubenrauch, from the substation at Pomona, Cal., and transplanted to the Date Garden at Mecca, Cal., in 1904 and 1905.

15213 to 15224. Phoenix dactylifera. **Date.**

From Siwah Oasis, Egypt. Received thru Mr. H. I. Rankin, Fayum, Egypt, March 23, 1905, in New York.

A collection of date suckers secured by Mr. Rankin, who made a trip to the oasis of Siwah in February, 1905, to get them. The Arab names are those secured by Mr. Rankin.

15213. *Gazaley.*
15214. *Frahee.*
15215. *Saydy.*
15216. *Roghm Gazal.*
15217. *Kayby.*
15218. *Azawy*, or *Widy.*
15219. Male palms.
15220. *Saydy.*

"Dried dates from the Oasis of Siwah. According to Cailliaud they are the third in quality of the Siwah dates. While fresh these are packed in baskets to be exported and sold in Egypt." (*Rankin.*)

15221 to 15224. (Numbers assigned to four palms of this shipment which arrived without labels.)

15225 to 15313. Phoenix dactylifera. **Date.**

From Bassorah, Arabia. Received thru Mr. H. P. Chalk, American consular agent, Bassorah, June 7, 1905.

A collection of 209 date suckers purchased from the Arabs by Mr. Chalk in Bassorah. The Arab names are those sent in by Mr. Chalk.

15225. *Bery.*
15226. *Helawy.*
15227. *Hevezy.*
15228. *Sayer.*
15229. *Gunamy.*
15230. *Khedrwy.*

15231 to 15313. (Numbers assigned to 83 palms which lost their labels in transit.)

15314. Phoenix dactylifera. **Date.**

From Marseille, France. Received thru Champagne Brothers (Limited), August 5, 1905.

Deglet Noor. Seed.

15315 to 15332.

From Tokyo, Japan. Received thru J. Ikeda & Co., seed growers, Waseda, August 14, 1905.

15315 to 15320. Brassica rapa. Turnip.

15315. *Shogoin.*
15316. *Tennoji.*
15317. *Omi-Kabu.*
15318. *Naga-Kabu.*
15319. *Hino.*
15320. *Kokabu.*

15315 to 15332—Continued.

15321 to 15332. Raphanus sp. **Radish.**

15321. *Nerima Marushiri.*
15322. *Nerima Shirihoso.*
15323. *Nerima Chiunaga Marushiri.*
15324. *Miyashige.*
15325. *Horyo.*
15326. *Extra Early Kunichi.*
15327. *Tokkuri.*
15328. *Shogoin.*
15329. *Early Sakurashima.*
15330. *Moriguchi.*
15331. *Kurama.*
15332. *Late Sakurashima.*

15333 to 15371.

From Pretoria, Transvaal. Presented by Prof. J. Burtt Davy, government agrostologist and botanist, Transvaal Department of Agriculture. Received August 14, 1905.

Forage grasses. The numbers in parentheses are those assigned by Professor Davy.

15333. (Natal redtop.) From Natal. (291/05)
15334. Aristida sp. From Natal. (288/05)
15335. (Native grass.) From Natal. (305/05)
15336. (Natal redtop.) From Natal. (239/05)
15337. Chloris virgata. From Natal. (290/05)
15338. Eragrostis sp. From Natal. (289/05)
15339. (Native grass.) (292/05)
15340. Chloris virgata elegans (?). (233/05)
15341. Setaria sp. (300/05)
15342. Eragrostis sp. (295/05)
15343. (Native grass.) (386/05)
15344. Setaria aurea. From Natal. (299/05)
15345. (Native grass.) (297/05)
15346. (Native grass.) (389/05)
15347. (Native grass.) (423/05)
15348. (Native grass.) (520/05)
15349. (Native grass.) (306/05)
15350. (Native grass.) (471/05)
15351. (Native grass.) (467/05)
15352. (Native grass.) (469/05)
15353. (Native grass.) (298/05)
15354. (Native grass.) (464/05)
15355. Chloris sp. (403/05)
15356. (Native grass.) (472/05)
15357. (Native grass.) (466/05)
15358. Eragrostis sp. From Natal. (289/05)
15359. Eragrostis sp. (390/05)
15360. (Native grass.) (429/05)
15361. (Native grass.) (396/05)
15362. Paspalum sp. (234/05)
15363. (Native grass.) (232/05)
15364. Eragrostis curvula valida. (307/05)
15365. (Native grass.) (425/05)
15366. Setaria sulcata. From Natal. (312/05)
15367. (Native grass.) (388/05)
15368. (Native grass.) (387/05)
15369. (Native grass.) From Natal. (315/05)
15370. (Native grass.) (308/05)
15371. (Native grass.) (296/05)

"Several of the species of Setaria and Eragrostis are valuable forage grasses. *Setaria sulcata* (S. P. I. No. 15366) is one of our best forage grasses, but requires a warm climate. It will stand some frost, however, as the roots have not been killed with a temperature of + 18° F. *Setaria aurea* (S. P. I. No. 15344) is a valuable hay grass. S. P. I. No. 15340 and S. P. I. No. 15337, forms of *Chloris virgata*, tho annual, are of great value here, making an excellent and sweet hay. This grass ought to be tried in Arizona, New Mexico, and southern California, and I am sending seed to the Arizona and California stations." (*Davy.*)

15372. COLOCASIA ANTIQUORUM ESCULENTUM. **Taro.**

From Mayaguez, P. R. Received thru Mr. H. C. Henricksen, Agricultural Experiment Station, August 15, 1905.

"This is one of the 40(?) varieties of taro cultivated in Hawaii. Roots of this variety, called *Japanese*, were sent from the Hawaiian Experiment Station to the Porto Rico Experiment Station in 1903. It does not compare favorably in Porto Rico with the Trinidad taro of the same type." (*Barrett.*)

15373. COLOCASIA ANTIQUORUM ESCULENTUM. **Taro.**

From Mayaguez, P. R. Received thru Mr. H. C. Henricksen, Agricultural Experiment Station, August 15, 1905.

"This variety is known as the *Royal* taro in Hawaii. It is one of the few true taros having purplish roots. The Porto Rico Experiment Station received this variety in 1903 from the Hawaiian Experiment Station, but it did not grow satisfactorily in the testing plats at Mayaguez, P. R." (*Barrett.*)

15374. ARRACACIA ESCULENTA. **Apio.**

From Ponce, P. R. Received thru Mr. J. W. van Leenhoff, August 15, 1905.

"Tho this plant is not cultivated in Porto Rico so widely as in Venezuela, it always sells for a good price in the local market. It grows better in elevated districts, preferring a cool, moist situation. Partial shade seems to be beneficial at low elevations. It should be treated like carrots." (*Barrett.*)

15375. PYRUS sp. **Pear.**

From Shanghai, China. Received thru Rev. J. M. W. Farnham, August 16, 1905.

15376. RUBUS sp. **Raspberry.**

From Shanghai, China. Received thru Rev. J. M. W. Farnham, August 16, 1905.

"A berry growing wild on the mountains about 150 miles southwest of Shanghai. The fruit is a little larger than the red raspberry which grows in New England, and has not quite so strong a raspberry flavor." (*Farnham.*)

15377 to 15422.

From Mayaguez, P. R. Received from Mr. H. C. Henricksen, of the Porto Rico Experiment Station, thru O. W. Barrett, August 15, 1905.

These varieties comprise a large part of the collection made by Mr. O. W. Barrett while botanist of that station.

15377. XANTHOSOMA sp. **Yautia.**

Guayamera Verde. "A dwarf yautia with pink tubers of first quality; not widely cultivated." (*Barrett.*)

15378. CALADIUM sp.

Brava. "A weed in fields. Leaves have a coppery luster. The grated yellow corm is used to kill maggots in sores on cattle." (*Barrett.*)

15379. XANTHOSOMA sp. **Yautia.**

Orqueta. "A small yautia with whitish petioles and pale leaves; the tuber is hard, yellow, and of second quality; cultivated in but few districts in Porto Rico." (*Barrett.*)

15380. XANTHOSOMA sp. **Yautia.**

"A yautia received from the Botanic Gardens, Aburi, Gold Coast, West Africa; it is apparently identical with one of the Jamaican varieties and was very probably introduced into Africa from the West Indies." (*Barrett.*)

15381. COLOCASIA sp. **Taro.**

Malanga 2. "Presented to the Porto Rico Experiment Station by Mr. E. André, of Trinidad." (*Barrett.*)

15377 to 15422—Continued.

15382. Colocasia sp. **Taro.**

Malanga. "Presented to the Porto Rico Experiment Station by Mr. E. André, of Trinidad." (*Barrett.*)

15383. Xanthosoma sp. **Yautia.**

"A yautia received from Trinidad, where it is known as the *Jamaica Tanier;* this variety, however, was not received in the collection from Jamaica." (*Barrett.*)

15384. Xanthosoma sp. **Yautia.**

"A semicultivated yautia sent from Guatemala by Mr. O. F. Cook; it appears distinct from any other known sort, but of little value as a crop." (*Barrett.*)

15385. Xanthosoma sp. **Yautia.**

Martinica. "A first-class yautia widely cultivated in Porto Rico, tho not observed in collections from other West India islands. It has the petioles blotched with rose, maroon, and cream, and the blades are dark green; the smallish tubers are oblong, yellow, and of a firm texture when cooked. Called *Quintal* and *Huevo* in some localities." (*Barrett.*)

15386. Xanthosoma sp. **Yautia.**

A first-class yautia obtained in Caracas, Venezuela, in 1903 by Mr. O. W. Barrett. "It attains a height of 5 feet and the largest tubers weigh from 1 to 2 pounds. This is a form of No. 15417 of Porto Rico, Trinidad, Belize, and Cuba; it may be considered the best of all known yautias." (*Barrett.*)

15387. Xanthosoma sp. **Yautia.**

Amarilla. "A common yautia in Porto Rico, prized for its drought-resisting and keeping qualities and highly nutritious yellow tubers; it is a small variety and very liable to fungous attacks." (*Barrett.*)

15388. Xanthosoma sp. **Yautia.**

Gengibrilla. "A second-class yautia from the Arecibo district of Porto Rico; the long, slender, pinkish tubers are of fair quality; it is one of the varieties of the peculiar flat-leaved *Manola* type." (*Barrett.*)

15389. Xanthosoma sp. **Yautia.**

Luquillo. "A yautia probably identical with No. 15417; cultivated at Cidra, P. R." (*Barrett.*)

15390. Xanthomosa sp. **Yautia.**

Islena. "A second-class yautia, not well known; it resembles No. 15388, but has short tubers and a different stooling habit. No. 32 of the Porto Rico Station's collection." (*Barrett.*)

15391. Xanthosoma sp. — **Yautia.**

Malanga Amarilla. "A yautia received from the Cuban Agricultural Experiment Station; No. 5206 of said station's plant list." (*Barrett.*)

15392. Xanthosoma sp. **Yautia.**

Vino. "A dwarf yautia, widely cultivated in Porto Rico; the pink or purplish tubers are of excellent quality for table use but are not produced in sufficient quantity to be found on the market." (*Barrett.*)

15393. Xanthosoma (?) sp. **Yautia.**

Cimarrona. "An apparently undescribed species growing in ravines in Porto Rico; it flowers, but probably does not produce seed. The grated corms are used to kill maggots in sores on cattle or horses. (See No. 15378)." (*Barrett.*)

15394. Xanthomosa sp. **Yautia.**

Guayamera Colorada. "A common first-class yautia, apparently peculiar to Porto Rico; the mauve or purplish petioles and leaf veins distinguish this sort from all others except No. 15404. The elongated pink tubers are of good size and excellent quality. The leaves attain 6 feet in good soil." (*Barrett.*)

15377 to 15422—Continued.

15395. Colocasia sp. **Taro.**

Dasheen. A species of Colocasia, probably undescribed; brought from Trinidad in 1903 by Mr. O. W. Barrett. "This proves a most promising economic, since the tubers are ripened in six to nine months; it can be grown on a variety of soils; the yield in good soil is from 2 to 4 pounds to the hill. It resembles Nos. 15372 and 15373 in producing true tubers like a yautia instead of a large rhizome like a true taro." (*Barrett.*)

15396. Xanthosoma sp. **Yautia.**

White Eddoe. "Sent by Mr. E. André, Port of Spain, Trinidad." (*Barrett.*)

15397. Xanthosoma sp. **Yautia.**

"An excellent yautia sent by the Jamaica Department of Agriculture. (No. 2, Jamaica.)" (*Barrett.*)

15398. Xanthosoma sp. **Yautia.**

Amarilla. "A small Cuban yautia sent by the Estación Central Agronómica, Santiago de las Vegas, Cuba. Probably identical with No. 15387, but perhaps more resistant to fungous attacks." (*Barrett.*)

15399. Xanthosoma sp. **Yautia.**

Guagui. "A yautia sent by the Estacion Central Agronómica, Santiago de las Vagas, Cuba." (*Barrett.*)

15400. Xanthosoma sp. **Yautia.**

"A yautia identical [?] with No.15394, but purchased from Reasoner Brothers, Oneco, Fla., as *Alocasia bataviensis.*" (*Barrett.*)

15401. Xanthosoma sp. **Yautia.**

"A yautia purchased from Reasoner Brothers, Oneco, Fla., as *Alocasia marshalli.* It yields a good-sized, edible tuber of the 'Rolliza' type." (*Barrett.*)

15402. Xanthosoma sp. **Yautia.**

Malanga Blanco. "A yautia received from the Estacion Central Agronómica, Santiago de las Vegas, Cuba." (*Barrett.*)

15403. Xanthosoma sp. **Yautia.**

"A fine yautia received thru the Jamaica Department of Agriculture. (No. 4, Jamaica.)" (*Barrett.*)

15404. Xanthosoma sp. **Yautia.**

Prieta. "A first-class yautia resembling No. 15394 as regards leaf coloring, but the tubers are orange yellow; a highly prized table variety, but not very productive." (*Barrett.*)

15405. Xanthosoma sp. **Yautia.**

Manola, or *Rolliza Ancha.* "A flat-leafed yautia not well known; the tuber is firm and yellow, but rather small." (*Barrett.*)

15406. Xanthosoma sp. **Yautia.**

"An excellent variety received from the Jamaica Department of Agriculture. (No. 5, Jamaica.)" (*Barrett.*)

15407. Xanthosoma sp. **Yautia.**

Punzera. "Probably identical with No. 15392." (*Barrett.*)

15408. Xanthosoma sp. **Yautia.**

Dominica. "A very choice variety of the *Amarilla* type, grown on the north side of Porto Rico; the tuber is in some respects the finest flavored and richest of all yautias." (*Barrett.*)

15409. Xanthosoma sp. **Yautia.**

"A first-class yautia received from the Jamaica Department of Agriculture. (No. 1, Jamaica.)" (*Barrett.*)

15337 to 15422—Continued.

15410. Xanthosoma sp. **Yautia.**

Isleña de Ponce. "A strong-growing yautia resembling No. 15392, but of two to three times the size. The tuber is of good flavor, pink, and is produced in fair quantity. Overstooling seems to be the principal fault of this variety." (*Barrett.*)

15411. Xanthosoma sp. **Yautia.**

Ysleña. "Received from the Estacion Central Agronómica, Santiago de las Vegas, Cuba. (No. 5207 of the Cuba station's list.)" (*Barrett.*)

15412. Xanthosoma sp. **Yautia.**

Belembe. "A wild or semicultivated yautia, probably *Xanthosoma hastifolium.* The young leaves of this species are preferred by the natives of Porto Rico for use (boiled) as a spinach. This plant flowers freely; it produces no tubers; height, 18 feet 2 inches." (*Barrett.*)

15413. Alocasia macrorhiza.

"This is semicultivated in some districts as a pig food; the large rhizomes are boiled to destroy the rhaphides." (*Barrett.*)

15414. Xanthosoma sp. **Yautia.**

Palma. "The largest of known Xanthosomas, tho of no great importance horticulturally. Urban considers this *X. violaceum*, but that species is usually considered as comprized by the purple-leaved forms, like Nos. 15394 and 15404. The nearly tuberless rhizome attains a length of 1 to 3 feet and a diameter of 3 to 6 inches. It is used for feeding pigs and poultry when boiled." (*Barrett.*)

15415. Xanthosoma sp. **Yautia.**

"A fine yautia, received from the Jamaica Department of Agriculture. (No. 6, Jamaica.)" (*Barrett.*)

15416. Xanthosoma sp. **Yautia.**

Quintal. "Probably identical with No. 15385. Named from its believed ability to produce 100 pounds of tubers per plant when very heavily fertilized. The rhizome is frequently eaten, tho not of so delicate a flavor and texture as the tubers." (*Barrett.*)

15417. Xanthosoma sp. **Yautia.**

Rolliza. "This is the best variety native to Porto Rico. It may be grown on a variety of soils. The yield is 2 to 4 pounds per hill. The tubers are of large size, white, mealy, and smooth. The rhizome is also eaten. This is undoubtedly *Xanthosoma sagittifolium* Schott. It occurs in Belize, Trinidad, and Cuba. A very similar form produces larger (?) tubers in Venezuela." (*Barrett.*)

15418. Xanthosoma sp. **Yautia.**

"A choice yautia, received from the Jamaica Department of Agriculture. (No. 3, Jamaica.)" (*Barrett.*)

15419. Xanthosoma sp. **Yautia.**

Blanca. "A second-class yautia, resembling No. 15417, but not so productive nor so early. The rhizome is poisonous, because of its content of calcium oxalate rhaphides. The tubers are more slender and rougher than those of the *Rolliza*, No. 15417." (*Barrett.*)

15420. Xanthosoma sp. **Yautia.**

"A yautia from Belize, probably identical with No. 15417." (*Barrett.*)

15421. Xanthosoma sp. **Yautia.**

"A yautia introduced into Porto Rico from Trinidad by the writer in 1903. It is very similar to No. 15417, but the tubers appear to vary slightly from yellowish white to pinkish white instead of being of the even white of *Rolliza.*" (*Barrett.*)

15422. Xanthosoma sp. **Yautia.**

Red Eddoe. Presented by Mr. E. André, Port of Spain, Trinidad. (*Barrett.*)

15423. NARCISSUS PSEUDO-NARCISSUS. **Daffodil.**

From Santa Cruz, Cal. Received thru Mr. E. Leedham, of the Leedham Bulb Company, August 16, 1905.

15424. MANGIFERA INDICA. **Mango.**

From Lucknow, India. Received thru Mr. Robert Anderson, Lansdowne, Pa., August 21, 1905.

Bombay (?).

15425 to 15427.

From Bellingham, Wash. Received thru Mr. H. E. Juenemann, of this Department, August 21, 1905.

15425. ROSA sp.

15426. ROSA sp.

15427. RUBUS SPECTABILIS.

15428 and 15429. VICIA FABA. **Horse bean.**

From Naples, Italy. Received thru Dammann & Co., August 18, 1905.

15428. *Vesce feverole des Champs.*

15429. *Vesce feverole petite.*

15430 to 15445.

From Bellingham, Wash. Received thru Mr. J. W. M. Smith, August 22, 1905.

15430 to 15434. HYACINTHUS sp.

15435 to 15440. NARCISSUS spp.

15441 and 15442. CROCUS sp.

15443 to 15445. TULIPA sp.

15446 to 15458.

From Clearbrook, Wash. Received thru Mr. George Gibbs, August 21, 1905.

15446 to 15456. NARCISSUS spp.

15457 and 15458. HYACINTHUS sp.

15459. NARCISSUS TAZETTA ALBA.

From Alameda, Cal. Received thru Mr. George Rosmarin, Encinal Nursery, August 22, 1905.

15460 to 15474. Mexican plants.

From City of Mexico, Mexico. Received from Dr. J. N. Rose, August 25, 1905.

The numbers in parentheses are those of Doctor Rose's notes, which give the exact localities where the various plants were secured.

15460. (No. 1178/05.)

15461. (No. 1179/05.)

15462. (No. 1180/05.)

15463. (No. 1182/05.)

15464. (No. 1183/05.)

15465. (No. 1184/05.)

15466. (No. 1185/05.)

15467. (No. 1186/05.)

15468. (No. 1187/05.)

15469. (No. 1188/05.)

15470. (No. 1189/05.)

15471. (No. 1190/05.)

15472. (No. 1194/05.)

15473. (No. 1202/05.)

15474. (No. 1205/05.)

15475 to 15477.

From Paris, France. Received thru Vilmorin-Andrieux & Co., August 26, 1905.

15475. CARAGANA ARBORESCENS. **Siberian pea tree.**

15476 and 15477. TRIFOLIUM INCARNATUM. **Crimson clover.**

15476. *Extra Early Red.*

15477. *Early White.*

15478. LILIUM LONGIFLORUM EXIMEUM. **Easter lily.**

Seed grown in the Department greenhouse by Mr. G. W. Oliver. Numbered September 2, 1905.

15479. LILIUM LONGIFLORUM EXIMEUM GIGANTEUM. **Lily.**

Seed grown in the Department greenhouse by Mr. G. W. Oliver. Numbered September 2, 1905.

15480 to 15583. ORYZA SATIVA. **Rice.**

From Tanga, German East Africa. Presented by Prof. Dr. A. Zimmermann, of the Kaiserliche Biologische Landwirtschaftliche Institut, Amani, in the spring of 1905.

A collection of native rice varieties. The notes are those given by Doctor Zimmermann.

15480.

From Pangani, in the hills, 700 meters high.

15481.

Plant from January to March. Grown in Pangani, Mgera, northerly; 1,000 meters high; river valley of the Luhisgura (?).

15482.

From Pangani, Mohomorra, northward of Useguha Mountains; 400 meters high.

15483.

From Pangani Buguru, west of Useguha; altitude 600 meters; river valley of Msangazi.

15484.

From Pangani Bondei; altitude 300 meters.

15485. *Busanga* mixt with *Kwindimba.*

Glumes of *Busanga* are brown yellow; of *Kwindimba,* gray white. Kernel of *Busanga* is white; of *Kwindimba,* brown. From Lindi.

15486. *Kwindimba.*

From Lindi.

15487. *Namaria.*

From Lindi. Mixt with *Kwindimba.* Glumes brown; strong thick awn; kernel white with a reddish tinge.

15488. *Mkemzuri.*

From Lindi. Slender awn, white kernel. Glumes yellow gold.

15489. *Mpnngarra.*

From Lindi. Glumes lighter than *Namaria* and *Mkemzuri.* Kernel white and large. Nos. 15485 to 15489 can be distinguished in cooking by specific odors. No one variety of soil is suitable for all conditions. In the valleys they are planted on moist or on sandy soils. In the high altitudes they are sown upon newly cleared land, but are uncertain and are dependent upon the rainfall.

15490. *Nondo.*

From Tanga district. Likes water.

15491. *Sifala.*

From Tanga district. Requires much water.

15492. *Nzurinwendo.*

From Tanga district. Requires much water.

15493. *Sona.*

From Tanga district. Requires much water.

15480 to 15583—Continued.

15494. *Ruwi.*

From Tanga district. Requires much water.

15495. *Mngoja.*

From Tanga district. Likes water.

15496. *Gundimba.*

From Mikindani.

15497. *Sungala.*

From Mikindani. Plant during December or January in black moist soil in valleys.

15498. *Ralimalia.*

From Matumbi Mariwe, in the district of Kilwa. Plant in heavy soil, giving much water and little sun. Matures in four and a half months after sowing.

15499. *Bungala.*

From Matumbi Mariwe, in the district of Kilwa. Plant in black soil, with much water and little sun. Matures in five months after sowing.

15500. *Seina.*

From Matumbi, near Mohora, in the district of Kilwa. Plant in black soil, with plenty of water and little sun. Matures in five and a half months after sowing.

15501. *Majeya Konoa.*

From Matumbi, near Kiswere, district of Kilwa. Requires good soil, much sun, and little water. Matures in three months.

15502. *Gundimba.*

From Matumbi, near Kiswere, district of Kilwa. Requires good soil, much sun, little water. Matures in three months.

15503. *Shindano.*

From Matumbi, near Kiswere, district of Kilwa. Requires good soil, much sun, little water. Matures in three months.

15504. *Ambari.*

From Tanga district. Likes water.

15505. *Mkarafun.*

From Tanga district. Likes water.

15506. *Mbenga Nonda.*

From Tanga district. Likes water.

15507. *Guniya.*

From Tanga district. Likes water.

15508. *Mounja Uniko.*

From Tanga district. Likes water.

15509. *Mchusi.*

From Tengra, near Saadani. Plant in November in sandy loam.

15510. *Majeya Fundi.*

From Tengra, near Saadani. Plant in November in sandy loam.

15511. *Majeya Fundi.*

From Tengra, near Saadani. Plant in November in sandy loam.

15512. *Kijegi.*

From Tengra, near Saadani. Plant in November in sandy loam.

15480 to 15583—Continued.

15513 to 15545.

(No data.)

15546.

Plant in wet soil. Grows after rainy season.

15547.

Inferior quality. Requires wet soil. Grows after the rainy season.

15548. *Bungala.*

Grown after rainy season in moist soil.

15549. *Kilimali, Akilimali, Halanaria, Tandika, Nyampendu, Halmilunda.*

Grown on lowlands, and with much rain will grow on the hills; from Mohora district, Rufiji.

15550. *Sena Kilbwali.*

Hill-land rice from Mohora district, Rufiji.

15551. *Sefala Bokianka Mbwego.*

Hill-land rice from Mohora district, Rufiji.

15552. *Kapora Najiza Kunywa Zarakupata Mpungamuene.*

Hill-land rice from Mohora district, Rufiji.

15553. *Bungala.*

From Mohora district, Rufiji. Lowlands.

15554. *Kaneno Kanenwa.*

From Mohora district, Rufiji. Hills and dry lowlands.

15555. *Nugengwa.*

From Mohora district, Rufiji. Lowlands, without irrigation.

15556. *Kijicho.*

From Mohora district, Rufiji; lowlands or hills.

15557. *Nyenyenyati.*

Lowlands, Mohora district, Rufiji.

15558. *Schindano.*

Wet lowlands, Mohora district, Rufiji.

15559. *Harula.*

Lowlands, Mohora district, Rufiji.

15560. *Kibaba Rupie.*

Lowlands, Mohora district, Rufiji.

15561. *Mbweke.*

Lowlands, Mohora district, Rufiji.

15562. *Manjano.*

Hills and lowlands, Mohora district, Rufiji.

15563. *Kensi.*

Lowlands, Mohora district, Rufiji.

15564. *Swala.*

Lowlands, Mohora district, Rufiji.

15565. *Kuku.*

Lowlands, Mohora district, Rufiji.

15480 to 15583—Continued.

15566. *Ngohe.*

Hills and lowlands. Becomes vigorous. Often planted at the edge of the field.

15567. *Borakupata.*

From Morogoro. Opening of the rainy season is sown in damp soil.

15568. *Meli.*

From Morogoro. Plant at the commencement of the rainy season in moist lowlands or marshy places.

15569. *Malula* and *Marura.*

From Morogoro. Plant at the commencement of the rainy season in moist lowlands or marshy ground.

15570. *Sena.*

From Morogoro. Plant in moist ground at the commencement of the rainy season.

15571. *Rufiji.*

From Mahenge. Plant in rainy season in heavy, black, wet soil. From five to six months to mature.

15572. *Rigubaza.*

From Mahenge. Plant in rainy season in heavy, moist, black soil. Matures in five to six months.

15573 to 15583.

From Mahenge. Mature in five to six months. Plant in rainy season in heavy, moist, black soil.

15573. *Sena.*
15574. *Schindano.*
15575. *Halimaria.*
15576. *Kapemba.*
15577. *Kafinda.*
15578. *Kikalati.*
15579. *Ngumbo.*
15580. *Satari.*
15581. *Funga.*
15582. *Kingano.*
15583. *Miknambe.*

15584. LILIUM LONGIFLORUM EXIMEUM GIGANTEUM. **Lily.**

Seedlings raised in the Department of Agriculture greenhouses. Numbered September 1, 1905.

15585 to 15593. NARCISSUS sp. **Narcissus.**

From Guernsey, England. Received thru W. Mauger & Son, Brookdale Nurseries, August 21, 1905.

15594 to 15654.

From Haarlem, Holland. Received thru Mr. C. G. van Tubergen, jr., Zwanenburg Nurseries, September 5, 1905.

Miscellaneous bulbs.

15594. GLADIOLUS ALATUS.
15595 to 15645. TULIPA spp.
15646 to 15654. IRIS spp.

15655. AVENA SATIVA. **Oat.**

From Sherman, Tex. Received thru Mr. W. F. Sheldon, September 5, 1905.

15656. PERSEA GRATISSIMA. **Avocado.**

From Miami, Fla. Received thru Col. G. B. Brackett, from Prof. P. H. Rolfs, September 5, 1905.

15657. Narcissus tazetta. **Narcissus.**

From Santa Cruz, Cal. Received thru T. Thompson, florist, September 5, 1905.

15658 to 15667. Narcissus spp. **Narcissus.**

From Leyden, Holland. Received thru De Graaf Brothers (Limited), wholesale bulb growers, September 6, 1905.

15668 and 15669.

From Chicago, Ill. Received thru the A. Dickinson Co., September 6, 1905.

15668. Dactylis glomerata. **Orchard grass.**

15669. Phleum pratense. **Timothy.**

15670 to 15672.

From Budapest, Hungary. Received thru Mr. Frank Benton, of the Bureau of Entomology, September 7, 1905.

15670. Cucurbita sp. **Squash.**

"Large, green, very warty squash. Odd looking. Flesh yellow. Seed taken from squash on sale in market of Venice, Italy, August, 1905." (*Benton.*)

15671. Cucurbita sp. **Squash.**

"Small, grayish-green, flat squash on sale in market of Venice, Italy, August, 1905." (*Benton.*)

15672. Cucumis melo. **Muskmelon.**

"Muskmelon from market at Trieste, Austria, August, 1905. Probably brought up from Dalmatia. Sold under the name *Zate.* Medium to large-sized greenish yellow melon of fairly good quality; very warty, or covered with knobby excrescences." (*Benton.*)

15673 to 15682.

From the Office of Gardens and Grounds, turned over to the Office of Seed and Plant Introduction, September 8, 1905.

15673. Monstera deliciosa.
15674. Smilax medica.
15675. Sansevieria cylindrica.
15676. Clivia miniata.
15677. Maranta lineata rosea.
15678. Alocasia cuprea.
15679. Dieffenbachia seguine.
15680. Homeria discolor.
15681. Piper nigrum.
15682. Xanthosoma lindeni.

15683 to 15697.

From Sydney, New South Wales. Presented by Mr. J. H. Maiden, director and government botanist, Botanic Gardens. Received September 7, 1905.

15683. Acacia cunninghamii.
15684. Acacia cultriformis.
15685. Acacia neriifolia.
15686. Callitris calcarata.
15687. Callitris robusta.
15688. Casuarina stricta.
15689. Casuarina torulosa.
15690. Cordyline australis.
15691. Cordyline obtecta.
15692. Cordyline stricta.
15693. Ficus rubiginosa.
15694. Podocarpus elata.
15695. Sterculia acerifolia.
15696. Telopia speciosissima.
15697. Macadamia ternifolia.

15698 to 15744.

From Hillegom, Holland. Received thru R. Van der Schoot & Son, September 11, 1905.

15698 to 15709. Narcissus spp.
15710 to 15738. Tulipa spp.
15739 to 15743. Iris hispanica.
15744. Narcissus sp.

15745. PHYSALIS sp. **Ground cherry.**

From Lima, Peru. Received thru W. R. Grace & Co., September 11, 1905.

Capuli.

15746. LILIUM LONGIFLORUM EXIMEUM. **Easter lily.**

From Tarrytown, N. Y. Received thru F. R. Pierson & Co., September 11, 1905.

15747 to 15749. THEOBROMA CACAO. **Cacao.**

From Trinidad, British West Indies. Received thru Prof. J. H. Hart, Trinidad Botanical Gardens, September 11, 1905.

15747. *Calabacillo.*

15748. *Forastero.*

15749. *Criollo.*

15750. PISUM sp. **Pea.**

From Gyangtse, Tibet. Received from Captain O'Connor, of the British Indian army, thru Mr. M. A. Carleton, cerealist, September 8, 1905.

15751. BESCHORNERIA BRACTEATA.

From Nice, France. Received thru Mr. A. Robertson-Proschowsky, September 15, 1905.

15752.

From Richmond, Va. Received thru T. W. Wood & Sons, September 15, 1905.

Wood's Grain Pasture Mixture, said to be a mixture of wheat, barley, rye, winter turf oats, and hairy vetch.

15753 to 15758.

From Shanghai, China. Received thru Rev. J. M. W. Farnham, September 15, 1905.

Seeds obtained 150 miles southwest of Shanghai, except 15753.

15753. AMYGDALUS PERSICA. **Peach.**

15754. AMYGDALUS PERSICA. **Peach.**

15755. CUCUMIS MELO. **Muskmelon.**

15756. CUCUMIS MELO. **Muskmelon.**

15757. CUCUMIS MELO. **Muskmelon.**

15758. CITRULLUS VULGARIS. **Watermelon.**

15759 to 15761. ORYZA SATIVA. **Rice.**

From Kobe, Japan. Presented by Mr. Thomas F. McGrath, of the China and Japan Trading Company, of Kobe, Japan, thru Dr. W. H. McGrath, Delaware avenue and Market street, Camden, N. J., and Mr. T. F. Townsend, United States Weather Bureau, Philadelphia, Pa. Received August 1, 1905.

15759. Early glutinous rice. "Tastes better than ordinary rice." (*McGrath.*)

15760. Later glutinous rice.

15761. Early ordinary rice.

15762 and 15763.

From the greenhouses of the Department of Agriculture. Received September 18, 1905.

15762. HOMALOMENA WALLISI.

15763. DIEFFENBACHIA sp.

15764 to 15766.

From Hungary and Bulgaria. Secured by Mr. Frank Benton, of the Bureau of Entomology, and received September 19, 1905.

15764. Citrullus vulgaris. **Watermelon.**

From Godollo. Small, round melon; dark green, with red flesh, thin rind, and brown seeds; small; quality excellent; quite sweet and juicy. Collected August 24, 1905. (No. 6.)

15765. Cucumis melo. **Muskmelon.**

From Budapest. Small, yellowish green, closely netted, quite aromatic. Flesh green, quite juicy, tender, and of excellent quality. Seed from melon purchased on the market. (No. 7.)

15766. Citrullus vulgaris. **Watermelon.**

From Sophia, Bulgaria. Yellow-cored, medium-sized, good quality. Flesh lemon yellow or light greenish yellow. (No. 9.)

15767 to 15772. Narcissus spp. **Narcissus.**

From Ettrick, Va. Received thru Poat Brothers, September 19, 1905.

15773 and 15774. Narcissus spp. **Narcissus.**

From Santa Cruz, Cal. Received thru Mr. E. Leedham, of the Leedham Bulb Company, September 21, 1905.

15775. Zea mays. **Corn.**

From Adrianople, Turkey. Received thru Mr. Frank Benton, of the Bureau of Entomology, September 21, 1905.

"Small, orange-yellow flint corn, said to withstand drought well. Stalks grow about 4 feet tall. The region about Adrianople is a very dry one. (No. 10.)" (*Benton.*)

15776. Cucumis melo. **Muskmelon.**

From Constantinople, Turkey. Received thru Mr. Frank Benton, September 21, 1905.

"Smooth skin, yellow outside; rather large, oval form; flesh greenish white, juicy and excellent flavor. (No. 11.)" (*Benton.*)

15777. Opuntia gymnocarpa. **Prickly pear.**

From Nice, France. Received thru Dr. A. Robertson-Proschowsky, September 22, 1905.

15778. Oryza sativa. **Rice.**

From Macassar, Celebes. Received thru Mr. Karl Auer, United States consular agent, September 5, 1905.

15779. Capriola dactylon. **Bermuda grass.**

From New York, N. Y. Received thru J. M. Thorburn & Co., September 28, 1905.

15780. Diospyros lotus. **Black jube.**

From Jamaica Plain, Mass. Received from the Arnold Arboretum, September 28, 1905.

15781. Adonis amurensis.

From London, England. Received thru William Cutbush & Son, Highgate Nurseries, September 28, 1905.

15782 to 15787. ARACHIS HYPOGAEA. **Peanut.**

From Marseille, France. Received thru Hon. Robert P. Skinner, United States consul-general, September 28, 1905.

15782. *First-class Java.* **15784.** *Java.*

15783. *Pondicherry.*

15785. *Gambia.*

"One of the best of the edible oil nuts from the West Coast of Africa." (*Skinner.*)

15786. *Ruffisque.*

"One of the best of the edible oil nuts from the West Coast of Africa." (*Skinner.*)

15787. *Chinese.*

"A low-grade nut for industrial oil only." (*Skinner.*)

15788. TRITICUM DURUM. **Macaroni wheat.**

From Fort Collins, Colo. Received thru Mr. O. B. Underwood, February, 1905.

15789 to 15796.

From Gotha, Orange County, Fla. Received thru Mr. H. Nehrling, Palm Cottage Experiment Gardens, September 30, 1905.

15789. ALOCASIA sp. (?).

15790. XANTHOSOMA MACULATUM. **Yautia.**

15791. COLOCASIA EUCHLORA (?). **Taro.**

15792. XANTHOSOMA sp. **Yautia.**

From Florida; said to have been cultivated by the Seminoles; common in old Florida gardens.

15793. XANTHOSOMA ROBUSTUM (?). **Yautia.**

15794. ALOCASIA VIOLACEA (?).

15795. COLOCASIA FONTANESII. **Taro.**

15796. COLOCASIA ILLUSTRIS. **Taro.**

15797 to 15802.

From Fairoaks, Cal. Received thru Mr. F. McMillan, October 2, 1905.

15797. AVENA SATIVA. **Oat.**

Belgian Winter. Grown from S. P. I. No. 9878.

15798. AVENA SATIVA. **Oat.**

Appler Rustproof. Grown from S. P. I. No. 11722.

15799. HORDEUM VULGARE. **Barley.**

Tennessee Winter. Grown from S. P. I. No. 11658.

15800. SECALE CEREALE. **Rye.**

Abruzzes. Grown from S. P. I. No. 10366.

15801. TRITICUM VULGARE. **Wheat.**

Fretes. Grown from S. P. I. No. 11714.

15802. TRITICUM VULGARE. **Wheat.**

Chul-bidai. Grown from S. P. I. No. 9131.

15803 to 15805.

From Mayaguez, P. R. Received thru the Agricultural Experiment Station, October 3, 1905.

15803. XANTHOSOMA sp. (?). **Yautia.**

"Probably identical with No. 15414." (*Barrett.*)

15803 to 15805—Continued.

15804. XANTHOSOMA SAGITTIFOLIUM. **Yautia.**

"From the Alta Vera Paz district of Guatemala. The yellow tubers seem to distinguish this from all other known sorts having reddish petioles." (*Barrett.*)

15805. DRACONTIUM ASPERUM. **"Guapa."**

"Resembles Amorphophallus, which was discovered on the upper Amazon and which appears to occur only in Porto Rico and Brazil. The large corm, when well matured, is cooked by the natives, and may be compared to squash in appearance, but has a strong flavor not usually relished at the first taste. The single leaf attains a height of 8 feet. The fetid effluvium of the flower is poisonous." (*Barrett.*)

15806. HYACINTHUS ORIENTALIS ALBULUS. **Hyacinth.**

From Boston, Mass. Received thru R. & J. Farquhar & Co., October 2, 1905.

15807 and 15808.

From Palm Springs, Cal. Received from Dr. Welwood Murray, thru Mr. T. H. Kearney, October 2, 1905.

15807. CHILOPSIS SALIGNA. **Desert willow.**

An ornamental shrub for desert regions.

15808. PARKINSONIA sp. **Palo verde.**

An ornamental desert shrub.

15809 to 15817.

From Hiroshima, Japan. Presented by Mr. J. T. Meyers. Received September 29, 1905.

15809. ERIOBOTRYA JAPONICA. **Loquat.**

15810. PRUNUS sp. **Japanese bush cherry.**

"These (15809 and 15810) are both nursery plants, the '*Usura*' (15810) probably thriving under such treatment as would be given young cherry trees." (*Meyers.*)

15811. BRASSICA sp. **Turnip.**

Shogo.

15812. BRASSICA PE-TSAI. **Pe-tsai cabbage.**

15813. BRASSICA sp. **Turnip.**

Mammoth Red.

15814. RAPHANUS sp. **Radish.**

Sakura.

15815. RAPHANUS sp. **Radish.**

Moriguchi.

15816. CUCURBITA sp. **Squash.**

Tropical.

15817. CUCURBITA sp. **Squash.**

Kyoto.

15818 to 15820. FEIJOA sp. **"Guayabilla."**

From Buenos Aires, Argentina. Received thru Dr. Carlos Spegazzini, botanist of the Department of Agriculture, October 5, 1905.

15818. *Large.*

15819. *Smooth* or *Manzana.*

15820. *Small* or *Winter.*

15821 to 15824.

From Trebizond, Asiatic Turkey. Secured by Mr. Frank Benton, of the Bureau of Entomology. Received October 2, 1905.

Seeds obtained from Mr. Dem. Ch. Papathopoulos, of Samsoun, Asiatic Turkey.

15821. HORDEUM sp. **Barley.**

"Said to be of superior quality; not used as a forage crop, and the grain exported for use in the manufacture of beer, being especially suited for this." (No. 12.)

15822 to 15824. PAPAVER SOMNIFERUM. **Opium poppy.**

15822. *White-seeded.*

Grown near Samsoun, on the south coast of the Black Sea, Turkey in Asia. (No. 13.)

15823. Mixt.

Grown near Samsoun, Turkey in Asia. (No. 14.)

15824. *Blue-seeded.*

Grown near Samsoun, Turkey in Asia. (No. 15.)

15825. ANDROPOGON SORGHUM. **Milo.**

From Mecca, Cal. Received thru Brauckman Brothers, August 7, 1905.

15826. FESTUCA GIGANTEA.

From Agricultural College, Mich. Received thru Dr. W. J. Beal, September 20, 1905.

15827. CHAETOCHLOA ITALICA. **Millet.**

From St. Louis, Mo. Grown by Mr. W. J. Magee in 1904. Received September, 1905.

"The grain of the Ainu Japanese people. This sample was grown from Ainu seed." (*Magee.*)

15828. SCHOENOCAULON OFFICINALE (?). **"Cebadilla."**

From Vera Cruz, Mexico. Received thru Hon. William W. Canada, United States consul, October 5, 1905.

15829. HORDEUM VULGARE. **Barley.**

From Manhattan, Kans. Received thru Mr. A. M. Ten Eyck, October 6, 1905.

Tennessee Winter.

15830. HORDEUM VULGARE. **Barley.**

From Westminster, Md. Received thru Mr. H. L. Rhinehart, October 6, 1905.

Tennessee Winter.

15831. AMYGDALUS COMMUNIS. **Almond.**

From Grazalema, near Ronda, Spain. Received thru Mr. David Fairchild, October 9, 1905.

"This almond, a single tree of which stands in the 'huerta' of Señor Félix Enríquez, is, altho small, the highest-priced almond raised in the region, and conforms in shape and texture to the *Jordan* almond of Malaga. Its unusually thin shell and especially delicate kernel should make it of special value in California, where the tendency of these introduced hard-shelled almonds seems to be to become larger and coarser. This almond may develop in California into a larger sized superior type of *Jordan* almond." (*Fairchild.*)

15832. AMYGDALUS COMMUNIS. **Almond.**

From Ubrique, near Villa Martin, Spain. Received thru Mr. David Fairchild, October 9, 1905.

"A thin-skinned, fine type, of which few trees exist in Ubrique." (*Fairchild.*)

15833 to 15837. AMYGDALUS COMMUNIS. **Almond.**

From Grazalema, near Ronda, Spain. Received thru Mr. David Fairchild, October 9, 1905.

Almonds in the shell, purchased of Señor Félix Enríquez. "These five types, coming probably from seedling trees, are valuable for the production of seedlings, which may be better adapted to Californian conditions than the Jordan almond previously imported." (*Fairchild.*)

15833. *Larga.*

15834. *Almendron.*

15835. *Malagueña.*

15836. *Fino.*

"The Fino type is similar to No. 15831, and is the highest-priced almond in Grazalema." (*Fairchild.*)

15837. *Mollar Chico.*

"Soft-shelled, very small almond, of delicious texture." (*Fairchild.*)

15838. TACCA PINNATIFIDA. **Fiji arrowroot.**

From Oneco, Fla. Received thru Reasoner Brothers, Royal Palm Nurseries, October 9, 1905.

15839 to 15843. OPUNTIA spp. **Prickly pear.**

From Seville, Spain. Received thru Mr. Ambrosio Eschauzier, October 9, 1905.

15839. *Españoles.*

"A variety said to yield abundantly fruits of good flavor; not so well suited for fences as the more spiny varieties." (*Eschauzier.*)

15840. *Americanos.*

15841. *Moscatel*, or *Malagueños.*

15842. *Tintillas*, or *Viejas.*

15843. *Franceses.*

"Nos. 15842 and 15843 are used for hedges more than for fruit, on account of their large size and spininess." (*Eschauzier.*)

15844 to 15848. NARCISSUS spp. **Narcissus.**

From Santa Cruz, Cal. Received thru the Leedham Bulb Company, October 7, 1905.

15849. COCHLEARIA OFFICINALIS. **Scurvy grass.**

From London, England. Received thru Barr & Sons, October 9, 1905.

The famous scurvy grass, which is one of the cruciferous order to which the cresses belong, is found in England in three varieties. Its habit is to grow near the seashore; consequently, it is almost the first plant which a suffering crew would find ready to hand on landing. It is seen along the muddy banks of rivers and on seashores, especially near Lymington, in parts of Wales, and in Cumberland. One variety grows on the Scotch mountains. It is not a "grass" in any sense, but an upright plant with spoon-shaped leaves and large bunches of white and rather pretty flowers. The small species found on the Scotch hills is the Greenland scurvy grass.

15850. OPUNTIA FICUS INDICA. **Prickly pear.**

From Catania, Sicily. Received thru Charles Beek, esq., manager for the Duke of Bronte, Castel di Maniace, October 10, 1905.

Reputed at Catania to be the best sort grown in Sicily; fruit very sweet; seed small, probably abortive; color, pale yellow.

15851. CYTISUS SCOPARIUS. **Scotch broom.**

From New York, N. Y. Received thru J. M. Thorburn & Co., October 10, 1905.

15852. CENTROSEMA PLUMIERI.

From Mayaguez, P. R. Received thru Mr. H. C. Henricksen, horticulturist of the Agricultural Experiment Station, October 10, 1905.

From a vine grown from seed brought from St. Vincent, British West Indies, in 1903, by Mr. O. W. Barrett, botanist and entomologist of the Porto Rico Experiment Station. "This plant is giving excellent results as a cover crop in both Porto Rico and Hawaii, and is worthy of trial in the Southern States." (*Barrett.*)

15853 to 15874.

From McPherson, Kans. Received thru Mr. L. A. Fitz, October 6, 1905.

15853. TRITICUM MONOCOCCUM. **Einkorn.**

Fourth crop from German seed. (C. I. No. 1781.)

15854. TRITICUM MONOCOCCUM. **Einkorn.**

Fourth crop from seed found mixt with oats, S. P. I. No. 3676. (C. I. No. 2226.)

15855. TRITICUM MONOCOCCUM. **Einkorn.**

First crop from S. P. I. No. 10474. (C. I. No. 2433.)

15856 to 15864. AVENA SATIVA. **Oat.**

15856. *Burt.*

Second crop from seed from Virginia Agricultural Experiment Station, Blacksburg, Va. (C. I. No. 293.)

15857. *Sixty-Day.*

Third crop from S. P. I. No. 5938. (C. I. No. 165.)

15858. *Red Algerian.*

Second generation from S. P. I. No. 10269. (No. C. I. 337.)

15859. *Texas Red.*

From Agricultural Experiment Station seed, Manhattan, Kans.

15860. *Danish.*

First generation from New Zealand seed, S. P. I. No. 12877.

15861. *Dun.*

First generation from New Zealand seed, S. P. I. No. 12878.

15862. *Sparrowbill.*

First generation from New Zealand seed, S. P. I. No. 12879.

15863. *Canadian.*

First generation from New Zealand seed, S. P. I. No. 12880.

15864. *White Tartar.*

First generation from New Zealand seed, S. P. I. No. 12881.

15865. TRITICUM SPELTA. **Spelt.**

Fourth generation from seed from Agricultural Experiment Station, Pullman, Wash. (C. I. No. 1772.)

15866. HORDEUM VULGARE. **Barley.**

Tennessee Winter. First generation from S. P. I. No. 11780. (C. I. No. 2577.)

15867. HORDEUM DISTICHUM NUTANS. **Two-row barley.**

Hanna. Third generation from S. P. I. No. 9133. (C. I. No. 226.)

15853 to 15874—Continued.

15868. SECALE CEREALE. **Rye.**

Fourth generation from Russian seed, obtained at the Paris Exposition. (C. I. No. 13.)

15869. SECALE CEREALE. **Rye.**

Fourth generation from Russian seed obtained at the Paris Exposition. (C. I. No. 1.)

15870 to 15874. TRITICUM VULGARE. **Wheat.**

15870. *Kharkof.*

Fourth generation from S. P. I. No. 7467. (C. I. No. 1583.)

15871. *Turkey.*

Fourth generation from seed from Harvey County, Kans. (C. I. No. 1558.)

15872. *Ulta.*

Fourth generation from S. P. I. No. 5638. (C. I. No. 1439.)

15873. *Crimean.*

Fourth generation from S. P. I. No. 5636. (C. I. No. 1437.)

15874. *Kharkof.*

Fourth generation from S. P. I. No. 5641. (C. I. No. 1442.)

15875. BROMUS PACIFICUS.

From Sitka, Alaska. Received thru Prof. C. C. Georgeson, Agricultural Experiment Station, October 13, 1905.

15876 to 15879. MUSA spp. **Banana.**

From Manila, P. I. Received thru Mr. William S. Lyon, Bureau of Agriculture, October 16, 1905.

15876. *Carinosa.*

15877. *Lacatan.*

15878. *La Gloria.*

15879. *Bumulan.*

15880. TAMARINDUS INDICA. **Tamarind.**

From Manila, P. I. Received thru Mr. William S. Lyon, Bureau of Agriculture, October 16, 1905.

15881. GARCINIA MANGOSTANA. **Mangosteen.**

From Port of Spain, Trinidad. Received thru Prof. J. H. Hart, Trinidad Botanical Department, October 21, 1905.

15882. KUNZEA POMIFERA.

Received by the Office of Grass and Forage Plant Investigations without definite information as to the sender, October 17, 1905.

"Dense, prostrate, sand-binding plant. Grows only on sand hammocks, near the seacoast (in South Australia). Bears large quantities of edible berries in clusters of five or six. *Muntries* of natives; *native apples* of whites. Fruits have the odor and taste of apples."

15883. OENOTHERA OVATA. **Evening primrose.**

From Santa Cruz, Cal. Received thru Mr. George J. Streator, October 17, 1905.

15884. BROMUS INERMIS. **Smooth brome-grass.**

From Chicago, Ill. Received thru Mr. A. Dickinson, October 16, 1905.

15885. HEVEA sp. **Para rubber.**

From Amherst, Lower Burma. Received thru Mr. G. N. Collins, of the Bureau of Plant Industry, October 19, 1905.

"These plants were grown from seed sent by Mr. W. S. Todd, Amherst, Lower Burma. The trees from which the seed came were doubtless grown from seed distributed thruout India by the British Government many years ago." (*Collins.*)

15886. DURIO ZIBETHINUS. **Durian.**

From Singapore, Straits Settlements. Presented by Mr. G. O. Blacker. Received October 19, 1905.

15887. (Undetermined.) **Bean.**

From Chehkiang, China. Presented by Dr. S. P. Barchet, of the American consulate, Shanghai. Received October 21, 1905.

Stock feed bean. "This bean is found on the market in the west of Chehkiang Province, and is worth further investigation. It is sown broadcast in rice fields about the time they are being drained, two or three weeks before harvesting. Horses and cattle are fond of this plant, i. e., they eat it greedily, green or cured, with or without the bean." (*Barchet.*)

15888. PANICUM FRUMENTACEUM. **Millet.**

From Kin-hua-fu, Chehkiang, China. Presented by Dr. S. P. Barchet. Received October 21, 1905.

"A valuable variety of small glutinous grain millet grown in the western part of Chehkiang. Used as fodder and for brewing a beer tasting like wine." (*Barchet.*)

15889. ALOCASIA sp.

From Mayaguez, P. R. Received thru Mr. D. W. May, of the Agricultural Experiment Station, October 24, 1905.

"A fine ornamental, having the leaves (both sides) and petioles of a shining-purple shade. Height, 3 to 5 feet. Rhizome very poisonous by reason of its rhaphides." (*Barrett.*)

15890 to 15925.

From Ukiah, Cal. Received thru Mr. Carl Purdy, October 23, 1905.

15890 to 15895. LILIUM spp.

15896 to 15904. HYACINTHUS sp.

15905 to 15925. TULIPA spp.

15926. PHASEOLUS RADIATUS. **Mung bean.**

From Augusta, Ga. Received thru the N. L. Willet Drug Company, October 21, 1905.

15927. CYTISUS PROLIFERUS ALBUS. **Tagasaste.**

From the Canary Islands. Presented by Capt. Rosendo Torras, Brunswick, Ga., thru Hon. W. G. Brantley. Received October 20, 1905.

15928. PINUS PARVIFLORA. **Pine.**

From Washington, D. C. Received October 24, 1905.

Seed collected from a tree growing in the grounds of the United States Department of Agriculture.

15929. CITRULLUS VULGARIS. **Watermelon.**

From Dzansoul, Caucasus, Russia. Received thru Mr. Frank Benton, of the Bureau of Entomology, October 24, 1905.

"Grown at an altitude of 4,000 feet. Large, yellow-cored, slightly oval, with light-green skin and thin rind. (No. 16.)" (*Benton.*)

15930. CITRULLUS VULGARIS. **Watermelon.**

From Dzansoul, Caucasus, Russia. Received thru Mr. Frank Benton, October 24, 1905.

"Alternate stripes of dark and light green, round, good quality. Small, yellow-cored. Grown at altitude of 4,000 feet. (No. 17.)" (*Benton.*)

15931. PHYSALIS sp. **Ground cherry.**

From Bortschka, Caucasus, Russia. Received thru Mr. Frank Benton, October 24, 1905.

"Found growing wild on the south side of Tschoroch River some miles above Bortschka, southwestern Caucasus. Elevation about 2,000 feet. Fruit not edible but quite ornamental, being bright crimson in color, with large crimson seed pods, while leaves of plant are still green. (No. 18.)" (*Benton.*)

15932. ACER CIRCINATUM. **Maple.**

From Clearbrook, Wash. Received thru Mr. George Gibbs, October 21, 1905.

15933 to 15940.

From Shanghai, China. Received thru Rev. J. M. W. Farnham, of the China Tract Society, October 26, 1905.

15933. LILIUM sp.
15934. (Undetermined.)
15935. AMYGDALUS PERSICA.
15936. (Undetermined.)
15937. CUCURBITA sp.
15938. (Undetermined.)
15939. (Undetermined.)
15940. (Undetermined.)

15941. COLOCASIA ANTIQUORUM ESCULENTUM. **Taro.**

From Gotha, Fla. Presented by Mr. H. Nehrling. Received October 26, 1905.

Wild taro, erroneously called "Tanyah."

15942 and 15943. LILIUM LONGIFLORUM hyb. **Lily.**

From Bellingham, Wash. Received thru Mr. John W. Macrae Smith, October 11, 1905.

15942. LILIUM LONGIFLORUM EXIMIUM GIGANTEUM.

Grown in one year from S. P. I. No. 11591.

15943. LILIUM LONGIFLORUM MULTIFLORUM.

Grown in one year from S. P. I. No. 11794.

15944. LILIUM CANDIDUM. **Lily.**

From Olympia, Wash. Received thru Mr. B. F. Denton, September 14, 1905.

15945 and 15946. CYNARA SCOLYMUS. **Artichoke.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., October 27, 1905.

15945. *Large Flat Brittany.*
15946. *Large Globe*, or *Paris.*

15947 to 15954.

From Hamel, West Australia. Received thru Mr. George F. Berthoud, director of the State farm, October 26, 1905.

15947. ATRIPLEX HOLOCARPA.
15948. ATRIPLEX LEPTOCARPA.
15949. ANDROPOGON SERICEUS.
15950. ASTREBLA TRITICOIDES.
15951. MICROLAENA STIPOIDES.
15952. DANTHONIA SEMIANNULARIS.
15953. CLIANTHUS DAMPIERII.
15954. SWAINSONA MACCULLOCHIA.

15955. ELYMUS CANADENSIS. **Wild rye.**

From Manistee, Mich. Received thru Mr. Stephen Cahill, October 26, 1905.

15956 to 16128. BROMUS spp. **Brome-grass.**

From Cambridge, England. Presented by Prof. Marshall Ward, of the Botanic Gardens. Received October 28, 1905.

Sample packets of the following varieties of Bromus gathered from various parts of the world:

15956. BROMUS sp., Switzerland, 1902. (186)

15957. BROMUS sp., St. Petersburg, 1903. (229)

15958. BROMUS sp., St. Owens Bay, Jersey. (240)

15959. BROMUS sp., St. Owens Bay, Jersey, 1903. (241)

15960. BROMUS ADOENSIS, Kew, 1902. (9)

15961. BROMUS ALOPECURUS, Lisbon, 1903. (216)

15962. BROMUS ALTISSIMUS, H. & S., 1903. (230)

15963. BROMUS ANDINUS, Stockholm, 1904. (252)

15964. BROMUS ANGUSTIFOLIUS, Berlin, 1902. (10)

15965. BROMUS ANGUSTIFOLIUS, Heidelberg, 1903. (215)

15966. BROMUS ARDUENNENSIS, H. & S., 1902. (11)

15967. BROMUS ARDUENNENSIS, Paris, 1902. (12)

15968. BROMUS ARDUENNENSIS, Schroeter, 1903. (13)

15969. BROMUS ARDUENNENSIS, Brussels, 1902. (184)

15970. BROMUS ARDUENNENSIS VILLOSUS, Brussels, 1902. (185)

15971. BROMUS ARENARIUS, Sydney, 1902. (210)

15972. BROMUS ARVENSIS, Sutton, 1901. (128)

15973. BROMUS ASPER, Coe Fen., Cambridge, 1901, A. H. (1)

15974. BROMUS BIEBERSTEINII, Schroeter, 1902. (14)

15975. BROMUS BRACHYSTACHYS, Upsala, 1902. (16)

15976. BROMUS BREVIARISTATUS, Rocky Mountains, 1902. (15)

15977. BROMUS BREVIARISTATUS, Kew, 1902. (150)

15978. BROMUS BRIZAEFORMIS, Sutton, 1901. (129)

15979. BROMUS CANADENSIS, Hamburg, 1902. (28)

15980. BROMUS CANADENSIS, Glasnevin, 1902. (29)

15981. BROMUS CANADENSIS, St. Petersburg, 1902. (30)

15982. BROMUS CANADENSIS, Sutton, 1901. (130)

15983. BROMUS CANADENSIS, Naples, 1904. (247)

15984. BROMUS CARINATUS, Kew, 1902. (151)

15985. BROMUS CILIATUS, Cracow, 1902. (19)

15986. BROMUS CILIATUS, Schroeter, 1902. (21)

15987. BROMUS CILIATUS, Kew, 1902. (22)

15988. BROMUS CILIATUS, H. & S., 1902. (23)

15989. BROMUS CILIATUS, Paris, 1902. (25)

15990. BROMUS CILIATUS, Vienna, 1902. (26)

15991. BROMUS CILIATUS, B. G. C., 1901. (170)

15992. BROMUS CILIATUS, B. G. C., 1901. (171)

15993. BROMUS CILIATUS, J. Fletcher, 1902. (187)

15956 to 16128—Continued.

15994. Bromus ciliatus (glabrous var.), Bonn, 1902. (20)
15995. Bromus commutatus, Schroeter, 1902. (33)
15996. Bromus commutatus, Madingley, 1903, A. H. (239)
15997. Bromus condensatus, Hack., Schroeter, 1902. (34)
15998. Bromus confertus, Glasnevin, 1902. (35)
15999. Bromus congestus, Glasnevin, 1902. (36)
16000. Bromus crinitus, St. Petersburg, 1901. (152)
16001. Bromus danthoniae, St. Petersburg, 1902. (38)
16002. Bromus diandrus, Glasnevin, 1902. (37)
16003. Bromus erectus, Schroeter, 1902. (40)
16004. Bromus erectus laxus, Strassburg, 1903. (218)
16005. Bromus erectus transsylvanicus, Hack., Stockholm, 1902. (118)
16006. Bromus erectus villosus (?), Cherryhinton, 1903, A. H. (214)
16007. Bromus fibrosus, Hack., Schroeter, 1902. (41)
16008. Bromus fimbriatus violaceus, H. & S., 1902. (42)
16009. Bromus fimbriatus violaceus, H. & S., 1903. (219)
16010. Bromus giganteus, Cherryhinton, 1901, A. H. (45)
16011. Bromus giganteus triflorus, S. H. Beckham, 1903. (211)
16012. Bromus grossus, H. & S., 1902. (43)
16013. Bromus gussoni, Glasnevin, 1902. (44)
16014. Bromus gussoni, Benary, 1902. (46)
16015. Bromus hookerianus, Vienna, 1902. (48)
16016. Bromus hordeaceus, St. Petersburg, 1902. (50)
16017. Bromus hordeaceus glabrescens, St. Petersburg, 1902. (49)
16018. Bromus inermis, Schroeter, 1902. (32)
16019. Bromus inermis, Sutton, 1901. (137)
16020. Bromus inermis, B. G. C., 1901. (176)
16021. Bromus inermis (awned var.), St. Petersburg, 1902. (51)
16022. Bromus inermis (viviparous form), Shroeter, 1902. (52)
16023. Bromus intermedius, B. G. C., 1901. (53)
16024. Bromus interruptus, Sutton, 1901. (136)
16025. Bromus japonicus, St. Petersburg, 1902. (54)
16026. Bromus japonicus, Tokyo, 1903. (236)
16027. Bromus kalmii, Paris, 1902. (55)
16028. Bromus kalmii, Kew, 1901. (58)
16029. Bromus krausei, St. Petersburg, 1902. (59)
16030. Bromus krausei, Oxford, 1903. (234)
16031. Bromus laevipes, St. Petersburg, 1902. (67)
16032. Bromus laevipes, Hamburg, 1902. (220)
16033. Bromus laxus, Glasnevin, 1902. (65)
16034. Bromus laxus, Sutton, 1902. (168)
16035. Bromus laxus, Vienna, 1902. (191)
16036. Bromus longiflorus, Paris, 1902. (61)
16037. Bromus longiflorus, Glasnevin, 1902. (62)

15956 to 16128—Continued.

16038. Bromus longiflorus, Upsala, 1902. (63)

16039. Bromus macranthus, Naples, 67, 1904. (253)

16040. Bromus macrostachys, Sutton, 1901. (140)

16041. Bromus macrostachys, Coimbra, 1901. (173)

16042. Bromus macrostachys lanuginosus, Palermo, 1902. (190)

16043. Bromus madritensis, Mrs. Gregory, 1904.

16044. Bromus madritensis, Old Walls, Carrick on Luir, Tipperary, 1902. (242)

16045. Bromus madritensis, Sutton, 1901. (139)

16046. Bromus madritensis delilei, B. G. C., 1901. (100)

16047. Bromus marginatus, St. Petersburg, 1902. (75)

16048. Bromus marginatus, U. S. Dept. Agr., 1902. (202)

16049. Bromus maximus gussoni, Palermo, 1903. (233)

16050. Bromus mollis, Sutton, 1901. (138)

16051. Bromus mollis (deformed fls.), Grumpington Road, August 27, 1902, A. H. (235)

16052. Bromus mollis glabratus, Hayle, Cornwall, 1902. (212)

16053. Bromus mollis lloydianus, Lizard, 1902. (206)

16054. Bromus mollis thominii, B. G. C., 1902. (169)

16055. Bromus multiflorus, Schroeter, 1902. (72)

16056. Bromus parviflorus, Schroeter, 1902. (79)

16057. Bromus patulus, Benary, 1902, (87)

16058. Bromus patulus, Hills Avenue, 1902, A. H. (204)

16059. Bromus patulus nanus, Benary, 1902. (90)

16060. Bromus pendulus, Lyons, 1902. (96)

16061. Bromus pitensis, St. Petersburg, 1902. (95)

16062. Bromus pitensis, Quito, 1903. (232)

16063. Bromus porteri frondans (?), U. S. Dept. Agr., 1902. (198)

16064. Bromus pubescens, Berlin, 1902. (86)

16065. Bromus pumpellianus, Saunders, 1902. (97)

16066. Bromus pumpellianus, Wawanesa, 1902. (192)

16067. Bromus pungens (33.01), B. G. C., 1901. (162)

16068. Bromus pungens ciliatus (?), B. G. C. (37), 1901. (160)

16069. Bromus purgans, Glasnevin, 1902. (81)

16070. Bromus purgans, Hamburg, 1902. (82)

16071. Bromus purgans, Kew, 1902. (83)

16072. Bromus purgans, Lemberg, 1902. (85)

16073. Bromus purgans (41), B. G. C., 1901. (164)

16074. Bromus purgans, B. G. C., 1901. (175)

16075. Bromus purpurascens, Hamburg, 1902. (93)

16076. Bromus purpurascens, Glasnevin, 1902. (94)

16077. Bromus racemosus, near Madingley Chalk Pit, A. H., 1902. (213)

16078. Bromus racemosus, Hamburg. (221)

16079. Bromus racemosus, Kew, 1903. (222)

16080. Bromus racemosus, Breslau, 1903. (223)

15956 to 16128—Continued.

16081. Bromus racemosus, Lyon, 1903. (224)
16082. Bromus racemosus, Babraham, 1903, R. I. Lynch. (237)
16083. Bromus racemosus, Madingley, 1903, A. H. (238)
16084. Bromus racemosus, Madingley, June 28, 1903, A. H. (243)
16085. Bromus richardsoni, U. S. Dept. Agr., 1902. (200)
16086. Bromus rigidus, Kew, 1901. (69)
16087. Bromus rubens, Montpelier, 1902. (101)
16088. Bromus rubens, U. S. Dept. Agr., 1902. (203)
16089. Bromus schraderi, Correvon, 1902. (113)
16090. Bromus schraderi, Upsala, 1902. (114)
16091. Bromus secalinus, Sutton, 1901. (146)
16092. Bromus secalinus, U. S. Dept. Agr., 1902. (194)
16093. Bromus secalinus multiflorus, Upsala, 1902. (116)
16094. Bromus segetum, U. S. Dept. Agr., 1902. (115)
16095. Bromus squarrosus, St. Petersburg, 1902. (78)
16096. Bromus squarrosus, Glasnevin, 1902. (102)
16097. Bromus squarrosus, near *B. rubens*, Roven, 1902. (103)
16098. Bromus squarrosus, Chelsea, 1902. (104)
16099. Bromus squarrosus, Correvon, 1902. (105)
16100. Bromus squarrosus, Schroeter, 1902. (106)
16101. Bromus squarrosus, Paris, 1902. (107)
16102. Bromus squarrosus villosus, Schroeter, 1902. (112)
16103. Bromus squarrosus wolgensis, St. Petersburg. 1902. (110)
16104. Bromus stenophyllus, Glasnevin, 1903. (225)
16105. Bromus sterilis, Sutton, 1901. (145)
16106. Bromus tacna, Paris, 1902. (120)
16107. Bromus tacna, Kew, 1901. (158)
16108. Bromus tacna, Warsaw. (246)
16109. Bromus tectorum, Sutton, 1901. (147)
16110. Bromus tectorum, U. S. Dept. Agr., 1902. (197)
16111. Bromus trinii, Kew, 1905.
16112. Bromus unioloides, Stockholm, 1902. (121)
16113. Bromus unioloides, Schroeter, 1902. (122)
16114. Bromus unioloides, Heidelberg, 1902. (123)
16115. Bromus unioloides, Sutton, 1901. (144)
16116. Bromus unioloides, Sutton, 1901. (148)
16117. Bromus unioloides, B. G. C., 1901. (156)
16118. Bromus unioloides, B. G. C., 1901. (161)
16119. Bromus unioloides, Palermo, 1902. (193)
16120. Bromus unioloides, Upsala, 1902. (207)
16121. Bromus unioloides, Penzance, 1902, A. H. (208)
16122. Bromus unioloides, Quito, 1903. (231)
16123. Bromus unioloides willdenowii, U. S. Dept. Agr., 1902. (196)
16124. Bromus valdivianus, H. & S., 1902. (126)

15956 to 16128—Continued.

16125. Bromus variegatus, Vienna, 1902. (125)

16126. Bromos vestitus, Griesswald, 1903. (228)

16127. Bromus virens, Benary, 1902. (124)

16128. Bromus willdenowii Kth., U. S. Dept. Agr., 1902. (195)

16129. Phaseolus max. **Mung bean.**

From New Orleans, La. Received thru Mr. R. E. Blouin, assistant director, Louisiana Sugar Experiment Station, Audubon Park, November 8, 1905.

16130. Pisum arvense. **Canada field pea.**

From Chicago, Ill. Received thru A. Dickinson & Co., November 8, 1905.

16131. Garcinia mangostana. **Mangosteen.**

From Heneratgoda, Ceylon. Received thru J. P. William & Bros., November 10, 1905.

"For experiments in grafting on a more resistant stock." (*Fairchild.*)

16132. (Undetermined.) **Aroid.**

From greenhouses of Public Buildings and Grounds, Washington, D. C. Received in June, 1904. Numbered November 10, 1905.

16133. Persea indica.

From Funchal, Madeira. Presented by Mr. J. B. Blandy. Received November 9, 1905.

"A species related to the avocado of commerce; for breeding purposes and as a stock." (*Fairchild.*)

16134. (Undetermined.) **"Catispa."**

From Guadalajara, Mexico. Received thru Mr. A. W. Geist, November 10, 1905.

"A quick-growing hardwood tree used for live posts for wire fences." (*Geist.*)

16135. Melilotus alba. **Sweet clover.**

From Augusta, Ga. Received thru the N. L. Willet Drug Company, November 8, 1905.

16136. Medicago sativa. **Alfalfa.**

From Billings, Mont. Received thru Mr. I. D. O'Donnell, October 31, 1905.

16137. Lathyrus silurus.

From Salonica, Turkey. Received thru Mr. J. Henry House, October 30, 1905.

"Extensively used as food for cattle. When burned like coffee it is said to make very good cereal coffee—better than barley." (*House.*)

16138. Medicago lupulina. **Black medick, or yellow trefoil.**

From New York, N. Y. Received thru J. M. Thorburn & Co., October 30, 1905.

16139. Xanthosoma sp. **Yautia.**

From Tepatitlan, Jalisco, Mexico. Received thru Mr. W. E. Safford, from Mr. C. V. Mead, October 31, 1905.

"This yautia apparently belongs to a type distinct from the West Indian forms; the petioles are purplish but the rhizome, tho of two seasons' growth, shows no indications of having produced tubers. This plant is prized by the natives, who sometimes call it "Papa de Colomo." The water in which the rhizomes are boiled should be changed several times." (*Barrett.*)

16140. SWAINSONA MACCULLOCHIANA.

From Sydney, New South Wales. Presented by Mr. J. H. Maiden, director of the Botanic Gardens. Received October 30, 1905.

"This is one of the most horticulturally valuable of all Swainsonas." (*Maiden.*)

16141 to 16159.

Presented by Dr. J. N. Rose, of the United States National Museum, having been collected by him during the summer of 1905, while in Mexico. Received October 30, 1905. The numbers in parentheses are those of Doctor Rose.

16141. AMARYLLIDACEAE.

From "Pedregal," near Tlalpam, Valley of Mexico. (1013 05.)

16142. HYMENOCALLIS sp.

From limestone hillsides, Tula, Hidalgo. (1036 05.)

16143. ANTHERICUM sp.

From limestone hillsides, Tula, Hidalgo. (1037 05.)

16144. (Undetermined.)

From limestone hillsides, Tula, Hidalgo. (1038 05.)

16145. (Undetermined.)

From limestone hillsides, Tula, Hidalgo. (1039 05.)

16146. (Undetermined.)

From limestone hillsides, Tula, Hidalgo. (1040 05.)

16147. HYMENOCALLIS sp.

From limestone hillsides, Yautepec, Morelos. (1066 05.)

16148. AMARYLLIDACEAE.

In barranca of Rio Aqueduct to near Santa Fe. D. F. (1087 05.)

16149. SPREKELIA sp.

From mountains near Pachuca. (1108 05.)

16150. ZEPHYRANTHES sp.

From mountains near Pachuca. (1109 05.)

16151. MILLA BIFLORA.

From limestone hills near Ixmiquilpam. (1161 05.)

16152. (Undetermined.)

From limestone hillside near Ixmiquilpam. (1162 05.)

16153. (Undetermined.)

From stony hillsides near San Juan del Rio, Quer. (1214 05.)

16154. ECHEANDIA sp.

From stony hillside near San Juan del Rio, Quer. (1216 05.)

16155. (Undetermined.)

From between Cadereyta and Visaron. (1264 05.)

16156. (Undetermined.)

From between Cadereyta and Visaron. (1270 05.)

16157. (Undetermined.)

From hills near El Riego. (1312 05.)

16158. TALINUM sp.

From hills near El Riego. (1317 05.)

16159. AGAVE sp.

From near Cuernavaca, Morelos. (1350 05.)

16160. Polypteris texana.

From Kosse, Tex. Collected by Mr. A. J. Pieters in October, 1905.

Very brilliant rose-colored flowers.

16161. Arachis hypogaea. **Peanut.**

From Paris, France. Received thru Vilmorin-Andrieux & Co., October 28, 1905.

16162 to 16164. Arachis hypogaea. **Peanut.**

From St. Louis, Mo. Secured by Mr. M. A. Carleton at the Louisiana Purchase Exposition, 1904.

16162. *Nápoli.* From Italy.

16163. *Salerno.* From Italy.

16164. (Unnamed sample from Argentina.)

16165. Zizania aquatica. **Wild rice.**

From Port Hope, Canada. Received thru Mr. Charles Gilchrist, November 2, 1905.

16166 to 16168. Vigna sinensis. **Cowpea.**

From St. Louis, Mo. Obtained by Mr. M. A. Carleton in the summer of 1904, at the Louisiana Purchase Exposition.

16166. *Black-eyed.* Labeled *Cosenza.*

Probably from Italy.

16167. *Black-eyed.*

From Reggio Calabria. From the Italian exhibit.

16168. Same as 16167, but labeled *Caserta.*

16169 and 16170. Persea spp.

From Monte, Grand Canary. Received thru Mr. Alaricus Delmard, Hotel Santa Brigida, November 2, 1905.

16169. Persea indica.

16170. Persea gratissima. **Avocado.**

16171 to 16174. Bromus inermis. **Smooth brome-grass.**

From Dwight, Nebr. Received thru Mr. J. P. Dunlap, November 1, 1905.

16171. *Yellow.*

"Best of all the varieties." (*Dunlap.*)

16172. *Hansen's.*

"Much like the yellow, but heads show less pink color when ripening and blades show more purple when dying. Field generally shows less yellow color; nearly as tall as yellow, but less stout in sod. Originally from South Dakota Experiment Station." (*Dunlap.*)

16173. *Colorado.*

"Dark purplish heads; nearly as dark as the darkest kinds, but fading as the heads ripen. Blades nearly as light as those of the *Yellow.* Not so large a grower as the *Yellow* or *Hansen.* Has been experimented with at the Colorado Experiment Station. From Keen Brothers, Pueblo, Colo." (*Dunlap.*)

16174. *Large Dark.*

"Very dark-colored heads when ripening, turning to a reddish brown. Barely equals other kinds in amount of feed; quality not quite so good. On hard land does not stand as well as the others. From R. Rabler, Leigh, Nebr." (*Dunlap.*)

16175 to 16188. Ipomoea batatas. **Sweet potato.**

From the Arlington Farm of the United States Department of Agriculture. Received November 1, 1905.

Fourteen of the best varieties, selected by Mr. W. R. Beattie.

16175. *Florida.*
16176. *McCoy.*
16177. *Hamburg.*
16178. *White Yam.*
16179. *Miles Yam.*
16180. *Early General Grant.*
16181. *Big Stem Jersey.*
16182. *Red Nansemond.*
16183. *Red Jersey.*
16184. *Bermuda Red.*
16185. *Van Nest Red.*
16186. *Early Red Carolina.*
16187. *Bronze Spanish.*
16188. *Southern Queen.*

16189. Oryza glutinosa. **Glutinous rice.**

From Kiangsu Province, China. Presented by Dr. S. P. Barchet, of Shanghai, China. Received November 4, 1905.

"Doctor Barchet states that the glutinous rice of China brings a higher price and has a better flavor than ordinary rice. He personally prefers it to the latter and advises a mixture of the glutinous with the ordinary rice, claiming that it adds distinctly to the flavor of the dish. This is not the red rice which is considered by our planters as a weed, but is a distinct variety." (*Fairchild.*)

16190. Zea mays. **Corn.**

From Leman, Caucasus, Russia. Received thru Mr. Frank Benton, of the Bureau of Entomology, November 2, 1905.

16191 to 16193.

From the Bulgarian exhibit at the Louisiana Purchase Exposition, 1904. Received November 7, 1905.

16191. Vicia villosa. **Hairy vetch.**
16192. Vicia sp. **Vetch.**
16193. Brassica napus. **Rape.**

16194. Curcuma amada. **Mango ginger.**

From Madras, India. Received thru G. Rajah Gopal Naidu, agricultural inspector, June 26, 1903. Numbered November 10, 1905.

16195. Zingiber sp.

(Origin in doubt.) Received in November, 1905.

16196. Curcuma longa. **Turmeric.**

From Mayaguez, P. R. Presented by Mr. H. C. Henricksen, horticulturist of the Agricultural Experiment Station. Received November 7, 1905.

"This plant was introduced from the Orient many years ago and has escaped from cultivation and become a troublesome weed in pastures in the western portion of Porto Rico. It flowers freely, but spreads only from the roots. It is one of the two or three commercial turmerics, but has no sale in this country because the special process by which it is prepared in the Orient is unknown here." (*Barrett.*)

16197 to 16207.

From Dr. J. N. Rose, of the United States National Museum, Washington, D. C. Received November 7, 1905.

16197. Yucca sp.

Lower California, 1905. (E. W. Nelson No. 7129.)

16197 to 16207—Continued.

16198. Agave sp.

Lower California, 1905. (E. W. Nelson No. 7151.)

16199. (Undetermined.)

Lower California, 1905. (E. W. Nelson No. 7157.)

16200. Ibervillea sonorae.

Lower California, 1905. (E. W. Nelson No. 7182.)

A large cucurbit vine; lives in dry regions and forms a large, bulbous root.

16201. Ibervillea sp.

Lower California, 1905. (E. W. Nelson No. 7182.)

16202. (Undetermined.)

Laredo, Tex., June 27, 1905. (J. N. Rose No. 1013.)

16203. (Undetermined.)

"Bulb" from Haciendo Ciervo, Mexico, 1905. (J. N. Rose No. 1266/05.)

16204. Zephyranthes sp.

From mountains near Pachuca, Mexico, 1905. (J. N. Rose 1109/05.)

16205. Dasylirion sp. nov.

Limestone hills west of El Riego, Tehuacan, Puebla, Mexico, 1905. (J. N. Rose No. 10009.)

16206. Agave sp.

El Riego, Tehuacan, Puebla, Mexico, 1905. (J. N. Rose No. 10006.)

16207. Amphypterygium sp.

Near Tomellin, Oaxaca, Mexico, 1905. (J. N. Rose No. 10096.)

16208. Davidia involucrata. **Davidia.**

From London, England. Received thru J. Veitch & Sons, November 2, 1905.

In the whole vegetable kingdom there is not a more striking object than a tree of Davidia when covered with its pure white bracts, which make it conspicuous at a great distance. It is a handsome tree, growing to a height of 60 to 70 feet, with foliage much resembling that of our common linden or basswood. When in full flower it is said to be a marvelous sight, owing to the alternate white and green caused by the large bracts intermingling with the leaves. The flowers themselves are polygamo-diœcious, all borne in heads inside a pair of large, white bracts about 3 inches long, with conspicuous red-anthered stamens and a long, bottle-shaped gynœcium. Botanically, the plant is allied to the dogwoods.

Growing at an elevation of 6,000 to 7,000 feet in central China, where the minimum temperature is about 5° F., there ought to be little doubt as to its hardiness in the greater part of the United States. Trees set out in France have survived the winters at Paris, while others in England have withstood 15 degrees of frost unprotected. Until well established, however, some protection in very severe weather is recommended. New plants are readily obtained by cuttings or by layering, and should be planted in a rich soil, with some protection from too much sunshine.

16209. Medicago sativa. **Alfalfa.**

From Chicago, Ill. Received thru the A. Dickinson Company, November 8, 1905.

16210 and 16211. Phaseolus radiatus. **Mung bean.**

From Chillicothe, Tex. Received thru Mr. A. B. Conner, November 7, 1905.

16210. Grown from S. P. I. No. 13394.

16211. Grown from S. P. I. No. 8540.

16212. (Undetermined.)

From Newcastle, New South Wales. Received thru Dr. Frederic W. Goding, United States consul, November 8, 1905.

16213. Medicago maculata. **Bur clover.**

From Abbeville, S. C. Received thru Mr. Arthur Parker, November 11, 1905.

16214. Musa textilis. **Manila hemp.**

From Manila, P. I. Received thru Mr. W. S. Lyon, Insular Bureau of Agriculture, November 13, 1905.

16215 to 16222. Erodium spp.

From Geneva, Switzerland. Received thru Mr. H. Correvon, November 13, 1905.

16215. Erodium hymenodes.

16216. Erodium chelidonifolium.

16217. Erodium pelargonifolium.

16218. Erodium daucoides.

16219. Erodium glandulosum.

16220. Erodium macradenum.

16221. Erodium manescavi.

16222. Erodium macrophyllum.

16223. Carum gairdneri.

From Pendleton, Oreg. Received thru Mr. W. H. Bleakney, November, 1905.

"This plant was formerly a staple article of food among the Umatilla and other Indian tribes of the Pacific Northwest. The roots may be eaten either raw or cooked. They have a delicious flavor." (*Coville.*) (See also No. 12932.)

16224. Blighia sapida. **Akee.**

From Kingston, Jamaica. Received thru Mr. G. N. Collins, November, 1905.

"Unless fully matured, the white fleshy arillus of this excellent fruit is regarded as poisonous by the natives of Jamaica." (*Collins.*)

16225 and 16226. Xanthosoma spp. **Yautia.**

From Floral Park, Long Island, N. Y. Received thru Mr. John Lewis Childs, November 17, 1905.

16225. Xanthosoma sagittifolium.

16226. Xanthosoma sp.

16227. Eucalyptus goniocalyx. **Eucalypt.**

From Guadalajara, Mexico. Received thru Mr. Federico Chisolm, November 17, 1905.

16228. Poa pratensis. **Kentucky bluegrass.**

From Winchester, Ky. Received thru Mr. D. S. Gay, November 17, 1905.

16229. Vigna sinensis. **Cowpea.**

From Bristol, Conn. Received thru Mr. Herman Ockels, November 10, 1905.

16230. Paspalum dilatatum. **Large water grass.**

From Biloxi, Miss. Received thru Mr. S. M. Tracy, November 18, 1905.

16231. Aralia racemosa. **Spikenard.**

From North Clarendon, Vt. Received thru Mr. James Barrett, November 21, 1905.

Roots and berries of the wild spikenard are used in the preparation of a remedy for catarrhal affections. For use in breeding with *Aralia cordata*, the Japanese "udo."

16232. TECOMA CAPENSIS (?).

From Lourenço Marquez, Portuguese East Africa. Received thru Hon. W. Stanley Hollis, United States consul, November 21, 1905.

"Seeds of a native African shrub that is much used in making hedges. Might be advantageously used in the warmer parts of the United States." (*Hollis.*)

16233 to 16236. ARACHIS HYPOGAEA. **Peanut.**

From Sydney, New South Wales. Received thru Mr. Walter S. Campbell, director of agriculture, Department of Mines and Agriculture, November 22, 1905.

16233. *Mammoth Bush.*

16234. *Improved Large.*

16235. *Cluster.*

16236. *Small.*

16237 to 16243. NEPHELIUM LITCHI. **Litchi.**

From Canton, China. Secured thru Dr. John M. Swan, of the Medical Missionary Hospital, and forwarded by the Yokohama Nursery Company, Yokohama, Japan. Received at Berkeley, Cal., October, 1905.

"This fruit tree, represented by many varieties, is worthy of thoro trial in Porto Rico, Hawaii, southern California, and Florida. It is one of the most delicious fruits in the world." (*Fairchild.*)

16237. (Without labels.)

16238. (No. 1.)

16239. *Hak Ip.*

A favorite early sort, ripening in the fifth month.

16240. *Nue Mai.*

A large-fruited, small-seeded variety extremely sweet. Ripens in the fifth or sixth month.

16241. *Kwai Mai.*

A very popular sort. Ripens at end of fifth month.

16242. (No. 2.)

16243. (No. 3.)

16244. FESTUCA OVINA INGRATA.

From Wenache Mountains, Washington, at an altitude of 6,000 feet. Collected by Mr. J. S. Cotton, of the Department of Agriculture, September, 1904. Received November, 1905.

16245 to 16247.

From New York, N. Y. Received thru Henry Nungesser & Co., November 21, 1905.

16245. ARRHENATHERUM ELATIUS. **Tall meadow oat-grass.**

16246. ONOBRYCHIS ONOBRYCHIS. **Sainfoin.**

16247. HOLCUS LANATUS. **Velvet grass.**

16248 to 16253. SOLANUM TUBEROSUM. **Potato.**

From Portsmouth, Va. Grown under the direction of Mr. W. A. Orton, of the Department of Agriculture, during the summer of 1905, from seed potatoes introduced from Ecuador, July, 1905.

16248. Round white potatoes.

Grown from S. P. I. No. 14973; first type. (P. B. No. 679b.)

16249. Round or elongated red potatoes.

Grown from S. P. I. No. 14973; second type. (P. B. No. 679c.)

16250. Elongated white potatoes.

Grown from S. P. I. No. 14973; third type. (P. B. 679d.)

16251. Round dark-red potatoes.

Grown from S. P. I. No. 14893. (P. B. No. 676.)

16252. Round white potatoes.

Grown from S. P. I. No. 14894. (P. B. No. 677.)

16253. Oval white potatoes.

Grown from S. P. I. No. 14895. (P. B. No. 678.)

16254 to 16275.

From Karlsruhe, Germany. Received thru the Botanic Gardens, November 17, 1905.

16254. Aegilops squarrosa.
16255. Arrhenatherum elatius.
16256. Brachypodium pinnatum.
16257. Eleusine tocussa.
16258. Erodium gruinum.
16259. Erodium stephanianum.
16260. Medicago ciliaris.
16261. Medicago echinus.
16262. Medicago elegans.
16263. Medicago sativa × falcata.
16264. Medicago minima.
16265. Medicago orbicularis.
16266. Medicago radiata.
16267. Medicago scutellata.
16268. Melilotus altissima.
16269. Melilotus italica.
16270. Trigonella coerulea.
16271. Trigonella corniculata.
16272. Triticum rigidum.
16273. Triticum trichophorum.
16274. Vicia cornigera.
16275. Vicia dumetorum.

16276 to 16302.

From Strassburg, Germany. Received thru the Botanic Gardens, November 21, 1905.

16276. Aegilops speltoides.
16277. Avena brevis.
16278. Avena hirsuta.
16279. Avena ludoviciana.
16280. Avena orientalis.
16281. Avena planiculmis.
16282. Avena strigosa.
16283. Bromus erectus.
16284. Erodium gruinum.
16285. Lappago racemosa.
16286. Medicago gerardi.
16287. Medicago terebellum.
16288. Medicago turbinata.
16289. Melilotus alba.
16290. Phaseolus caffer
16291. Pisum jomardi.
16292. Triticum boeoticum.
16293. Triticum boeoticum thaoudar.
16294. Triticum dicoccum.
16295. Triticum giganteum.
16296. Triticum monococcum.
16297. Triticum monococcum hornemanni.
16298. Triticum polonicum.
16299. Triticum rigidum.
16300. Vigna glabra.
16301. Pisum elatius.
16302. Phaseolus multiflorus.

16303 to 16335.

From Kashgar, Chinese Turkestan. Received from Mr. Ellsworth Huntington, Kashgar, Chinese Turkestan, via Baku, Russia, thru the Chinese Amban of Khotan, and Mr. Macartney, British political agent at Kashgar, November 17, 1905.

"Khotan is a large, well-watered oasis, at an elevation of about 4,500 feet, at the foot of the Kuen Lun Mountains. Longitude 80°, latitude 37° N. In general, the climate is typically midcontinental. It may be likened to that of Colorado, tho drier and more extreme." (*Huntington.*)

16303. Vigna sinensis. **Cowpea.**

Lobia. A white bean.

16304. Brassica napus (?). **Turnip.**

Chamgu.

16305. (Undetermined.)

Usun.

16303 to 16335—Continued.

16306. CITRULLUS VULGARIS. *Tarbuz.*	**Watermelon.**
16307. CORIANDRUM SATIVUM. *Gesnich.*	**Coriander.**
16308. ALLIUM sp. *Kuda.*	**Onion.**
16309. FOENICULUM DULCE (?). *Siadana.*	**Fennel.**
16310. BRASSICA sp. *Kichi.*	**Mustard.**
16311. SESAMUM INDICUM. *Kunjut.*	**Sesame.**
16312. BRASSICA OLERACEA (?). *Baseh.*	**Cabbage.**
16313. ALLIUM CEPA (?). *Piaz.*	**Onion.**
16314. PANICUM MILIACEUM. *Tarekh.*	**Millet.**
16315. APIUM GRAVEOLENS. *Chingseh.*	**Celery.**
16316. AGRIOPHYLLUM GOBICUM. *Palak.*	**Sulhir.**
16317. MEDICAGO SATIVA. *Beda.*	**Alfalfa.**
16318. DAUCUS CAROTA. *Zardek.*	**Carrot.**
16319. CUCUMIS MELO. *Kaghun.*	**Muskmelon.**
16320. CICER ARIETINUM. *Narkhot.*	**Chick-pea.**
16321. LINUM USITATISSIMUM. *Zighar.* A variety of flax used only for oil.	**Flax.**
16322. CUCUMIS SATIVUS. *Khonga.*	**Cucumber.**
16323. PHASEOLUS RADIATUS. *Mash*, or *Dal pea.*	**Mung bean.**
16324. CARTHAMUS TINCTORIUS. *Zarangzeh.*	**Safflower.**
16325. BRASSICA sp. *Zaghun.* Extensively cultivated for oil.	**Mustard.**
16326. PISUM sp. *Puchek.*	**Pea.**
16327. TRITICUM VULGARE. *Bugdai.*	**Wheat.**

16303 to 16335—Continued

16328. ORYZA SATIVA. **Rice.**

Shal.

16329. HORDEUM sp. **Barley.**

Arpa.

16330. ZEA MAYS. **Corn.**

Konak.

16331. CUCURBITA sp. **Squash** (?).

Kawa.

16332. LAGENARIA VULGARIS (?). **Gourd.**

Kapak.

16333. CANNABIS SATIVA. **Hemp.**

Bang. Used for smoking.

16334. IRIS ENSATA PABULARIA. **Iris.**

Chigitmak. "A species of iris said to grow in the dry desert sand or almost anywhere if once it gets rain enough to cause it to sprout. It is reported to be a good forage plant, both green and dry. Sheep are very fond of it, and other animals do not object to it." (*Huntington.*)

16335. TRIGONELLA FOENUM-GRAECUM. **Fenugreek.**

Shemshu.

16336 to 16470.

From Pullman, Wash. Received thru Mr. Byron Hunter, assistant agrostologist of the Department of Agriculture, November 14, 1905.

Seeds grown at the Agricultural Experiment Station at Pullman, Wash., together with others collected from various sources.

16336. AGROPYRON sp.

A promising grass.

16337. AGROPYRON DIVERGENS.

Collected in August, 1904, on the Moscow Mountains.

16338. AGROPYRON DIVERGENS.

Collected June 29, 1905, at Wawawai, Wash. (Agros. No. 579.)

16339. AGROPYRON ELMERI.

Collected August 4, 1904, at Wawawai, Wash. (Agrost. No. 675.)

16340. AGROPYRON OCCIDENTALE.

Crop of 1905.

16341. AGROPYRON OCCIDENTALE.

Grown at Harlem, Mont.

16342. AGROPYRON PSEUDO-REPENS.

Crop of 1905.

16343. AGROPYRON SPICATUM.

Crop of 1905.

16344. AGROPYRON TENERUM.

Crop of 1905. (Agrost. No. 211.)

16345. AGROPYRON TENERUM.

Crop of 1904.

16346. AGROPYRON TENERUM.

Crop of 1905. Grown from seed collected at Trinidad, Colo.

16347. TRITICUM VIOLACEUM.

Crop of 1905. (Agrost. No. 210.)

16348. ALOPECURUS CASTELLANUS.

Crop of 1903.

16349. ARRHENATHERUM ELATIUS. **Tall meadow oat-grass.**

Crop of 1905. (Agrost. No. 2191.)

16350. AVENA FLAVESCENS.

Crop of 1905. (Agrost. No. 2192.)

16351. AVENA ORIENTALIS.

Crop of 1905. (Agrost. No. 1157.)

16352. AVENA SATIVA. **Oat.**

Grown in 1905 from Argentine seed.

16336 to 16470—Continued.

16353. Bromus sp.

Crop of 1905. (Agrost. No. 245.)

16354. Bromus carinatus.

Collected at Wawawai, Wash., in 1904.

16355. Bromus carinatus.

Grown in 1905 from seed originally collected at Wawawai, Wash.

16356. Bromus carinatus.

Grown in 1904 at Chehalis, Wash. (Agrost. No. 609.)

16357. Bromus carinatus hookerianus.

Crop of 1905.

16358. Bromus carinatus hookerianus.

16359. Bromus inermis. **Smooth brome-grass.**

16360. Bromus marginatus.

Crop of 1904.

16361. Bromus marginatus.

"*Eight-dollar Grass.*" Grown at Selma, Oreg.

16362. Bromus marginatus.

Grown in 1905 from Portland, Oreg., seed.

16363. Bromus marginatus.

Crop of 1905.

16364. Bromus marginatus elatior.

16365. Bromus marginatus maritimus.

Crop of 1905. (Agrost. No. 2261.)

16366. Bromus marginatus pumpellianus.

Crop of 1905.

16367. Bromus polyanthus.

Gathered at Portland, Oreg., in 1904. (Agrost. No. 614.)

16368. Bromus polyanthus.

Crop of 1905. (Agrost. No. 319.)

16369. Bromus polyanthus paniculatus.

16370. Bromus sitchensis.

Grown in 1904 from seed gathered at Puyallup, Wash. (Agrost. No. 600.)

16371. Dactylis glomerata. **Orchard grass.**

Purchased from the C. H. Lilly Company, Seattle, Wash.

16372. Dactylis glomerata. **Orchard grass.**

Crop of 1905.

16373. Deschampsia caespitosa.

Crop of 1904.

16374. Elymus canadensis. **Wild rye.**

16375. Elymus virginicus submuticus.

Crop of 1902. (Agrost. No. 328.)

16376. Elymus virginicus submuticus.

Grown in 1905 from S. P. I. No. 16375.

16377. Festuca arundinacea.

16378. Festuca elatior. **Tall fescue.**

Grown from Kansas seed.

16379. Festuca hyb.

A hybrid from Mr. A. B. Leckenby, Union, Oreg.

16380. Festuca pratensis. **Meadow fescue.**

16381. Festuca reflexa.

16382. Lathyrus azureus.

Grown in 1905 from S. P. I. No. 11195.

16383. Lathyrus coccineus.

Grown in 1905 from S. P. I. No. 11196.

16384. Lathyrus ochrus.

Crop of 1905.

16336 to 16470—Continued.

16385. Lathyrus sativus. **Bitter vetch.**

Grown in 1905 from S. P. I. No. 11197.

16386. Lathyrus sativus. **Bitter vetch.**

Grown in 1905 from S. P. I. No. 11198.

16387. Lathyrus sativus. **Bitter vetch.**

Grown in 1905 from S. P. I. No. 11199.

16388. Lathyrus tingitanus. **Tangier scarlet pea.**

Grown in 1905 from S. P. I. No. 11220.

16389. Lathyrus tingitanus. **Tangier scarlet pea.**

Grown in 1905 from Agrost. No. 1548.

16390. Lolium bonariensis.

Grown in 1905 from Agrost. No. 2321.

16391. Lolium perenne. **Perennial rye-grass.**

From E. J. Bowen, San Francisco, Cal.

16392. Lolium perenne. **Perennial rye-grass.**

Grown in 1905 from seed secured in Holland.

16393. Lolium perenne. **Perennial rye-grass.**

Grown in 1905 from Agrost. No. 1981.

16394. Lolium perenne. **Perennial rye-grass.**

Grown in 1905 from Agrost. No. 5349. From Argentine seed.

16395. Lotus americanus. **Dakota vetch.**

From Cusick, Wash.

16396. Lotus americanus. **Dakota vetch.**

From Wenatchee, Wash.

16397. Lotus corniculatus. **Bird's-foot trefoil.**

Grown in 1905 from S. P. I. No. 11204.

16398. Lotus tetragonolobus. **Winged pea.**

Grown in 1905 from S. P. I. No. 10398.

16399. Medicago media. **Sand lucern.**

Crop of 1904.

16400. Medicago media. **Sand lucern.**

Crop of 1905.

16401. Medicago sativa. **Alfalfa.**

Grown by Mr. E. W. Downen, Pullman, Wash., in 1904.

16402. Medicago sativa. **Alfalfa.**

Turkestan alfalfa. Grown at Walla Walla, Wash., in 1904, from S. P. I. No. 991.

16403. Medicago sativa. **Alfalfa.**

Turkestan alfalfa. Grown in 1905 at Pullman, Wash., from seed obtained from Mr. M. Evans.

16404. Melilotus indicus.

Grown from Agrost. No. 1684.

16405. Melilotus macrostachys.

Grown from Agrost. No. 1553.

11406. Melilotus sulcata.

Grown from Agrost. No. 1161.

16407. Melica californica.

Grown in 1905 from Agrost. No. 1925.

16336 to 16470—Continued.

16408. PANICUM sp. **Bird seed.**
Crop of 1905.

16409. PANICUM sp. **Hungarian millet.**
Grown in 1905 from Agrost. No. 2355.

16410. PANICUM CRUS-GALLI.
Grown from Agrost. No. 1682.

16411. PANICUM CRUS-GALLI.
Crop of 1905.

16412. PANICUM MILIACEUM. **Broom-corn millet.**
Grown from Agrost. No. 2620.

16413. PANICUM MILIACEUM. **Broom-corn millet.**
Grown from Agrost. No. 2621.

16414. PANICUM MILIACEUM. **Broom-corn millet.**
Mixt yellow and white broom-corn millet. Grown from Agrost. No. 2625.

16415. PANICUM MILIACEUM. **Broom-corn millet.**
Grown from Agrost. No. 2626.

16416. PANICUM MILIACEUM. **Broom-corn millet.**
White. Grown from Agrost. No. 2627.

16417. PANICUM MILIACEUM. **Broom-corn millet.**
Grown from Agrost. No. 2628.

16418. PANICUM MILIACEUM. **Broom-corn millet.**
White seed; late variety. Grown from Agrost. No. 2629.

16419. PANICUM MILIACEUM. **Broom-corn millet.**
Grown in 1905 from seed obtained at Cusick, Wash.

16420. PANICUM MILIACEUM. **Broom-corn millet.**
White. Grown from seed obtained in Germany.

16421. PANICUM MILIACEUM. **Broom-corn millet.**
Grown from Austrian seed.

16422. PANICUM MILIACEUM. **Broom-corn millet.**
Austrian seed.

16423. PANICUM MILIACEUM. **Broom-corn millet.**
Grown in 1904 at Usk, Wash.

16424. PENNISETUM SPICATUM. **Pearl millet.**
Grown at Biggenden, Queensland. (Agrost. No. 2110.)

16425. PHALARIS ARUNDINACEA. **Reed canary grass.**
Grown from seed obtained from J. M. Thorburn & Co., New York City, N. Y.

16426 to 16432. PHALARIS CANARIENSIS. **Canary grass.**

16426.
Grown from Agrost. No. 1683.

16427.
Grown from Agrost. No. 2331.

16428.
Grown from Agrost. No. 2332.

16429.
Grown from Agrost. No. 2333.

16430.
Grown from Agrost. No. 2334.

16431.
Grown from Agrost. No. 2335.

16432.
From Genoa, Italy. Obtained at the Louisiana Purchase Exposition in 1904. (Agrost. No. 2361.)

16336 to 16470—Continued.

16433. Phleum pratense. **Timothy.**

Early.

16434. Phleum pratense. **Timothy.**

Stewart's Mammoth.

16435. Phleum pratense. **Timothy.**

Pasture.

16436. Pisum arvense. **Field pea.**

Grown from S. P. I. No. 1486.

16437. Pisum arvense. **Field pea.**

Grown from S. P. I. No. 1487.

16438. Plantago fastigiata.

Grown from seed originally obtained in Arizona.

16439. Plantago fastigiata.

Crop of 1904.

16440. Poa triflora.

Grown at Cusick, Wash.

16441. Spartina sp.

Grown at Cusick, Wash.

16442. Spartina cynosuroides.

16443. Stipa tenacissima. **Esparto grass.**

Grown from seed obtained from J. M. Thorburn & Co., New York, N. Y. (Agrost. No. 2216.)

16444. Trifolium pannonicum.

Grown from S. P. I. No. 9817.

16445. Trifolium pratense. **Red clover.**

Grown in 1904 by Mr. C. R. Widmer, Albany, Oreg.

16446. Trigonella foenum-graecum. **Fenugreek.**

Grown from Egyptian seed.

16447. Vicia sp. **Vetch.**

A variety similar to pearl vetch. Grown from Agrost. No. 2452.

16448. Vicia sp. **Vetch.**

Grown from S. P. I. No. 11200.

16449. Vicia sp. **Vetch.**

Grown at Ray, Wash.

16450. Vicia sp. **Vetch.**

Grown from S. P. I. No. 11199.

16451. Vicia sp. **Vetch.**

Grown from Agrost. No. 2454.

16452. Vicia atropurpurea. **Vetch.**

Grown from S. P. I. No. 12135.

16453. Vicia bithynica. **Vetch.**

Grown from S. P. I. No. 11230.

16454. Vicia cracca. **Vetch.**

Grown from S. P. I. No. 10283.

16455. Vicia cracca. **Vetch.**

Grown from Chinese seed.

16456. Vicia egyptica. **Vetch.**

16336 to 16470—Continued.

16457. VICIA FABA. **Vetch.**

Grown from Agrost. No. 2463.

16458. VICIA FULGENS. **Vetch.**

Grown from S. P. I. No. 11231.

16459. VICIA GIGANTEA. **Vetch.**

Grown in 1904 at Clatskanie, Oreg. (Agrost. No. 613.)

16460. VICIA HIRSUTA(?). **Japan vetch.**

Grown from S. P. I. No. 9237.

16461. VICIA HIRTA. **Vetch.**

16462. VICIA LUTEA. **Vetch.**

Grown from Algerian seed.

16463. VICIA MICRANTHA. **Vetch.**

Grown from Agrost. No. 999.

16464. VICIA NARBONNENSIS. **Vetch.**

Grown from S. P. I. No. 11232.

16465. VICIA SATIVA ALBA. **Pearl vetch.**

16466. VICIA SATIVA. **Common vetch.**

Grown at Corvallis, Oreg.

16467. VICIA SATIVA ALBA. **Pearl vetch.**

Grown from seed from Mr. Henry Gilbrich, New Era, Oreg.

16468. VICIA SICULA. **Vetch.**

Crop of 1904.

16469. VICIA SICULA. **Vetch.**

Grown from Algerian seed.

16470. VICIA VILLOSA. **Hairy vetch.**

Seed from Mr. Elliott.

16471. ANDROPOGON HALEPENSIS. **Johnson grass.**

From St. Louis, Mo. Received thru D. J. Bushnell & Co., November 25, 1905.

16472 and 16473.

From Durban, Natal, South Africa. Received thru the Botanic Gardens, November 25, 1905.

16472. ARACHIS HYPOGAEA. **Peanut.**

16473. VOANDZEIA SUBTERRANEA. **Woandzu.**

16474. LESPEDEZA STRIATA. **Japan clover.**

From Richmond, Va. Received thru T. W. Wood & Son, November 29, 1905.

16475. LESPEDEZA STRIATA. **Japan clover.**

Received from the Office of Grass and Forage Plant Investigations of the Department of Agriculture, November, 1905. (Agrost. No. 1115.)

16476. CUCURBITA sp. **Pumpkin.**

From Pretoria, South Africa. Received thru Prof. J. Burtt Davy, of the Transvaal Department of Agriculture, November 27, 1905.

Boer.

16477 to 16480. GARCINIA spp.

From Sagua la Grande, Cuba. Received thru J. S. Montero & Bros., December 1, 1905.

16477. GARCINIA COCHINCHINENSIS.

16478. GARCINIA FERREA.

16479. GARCINIA HANBURYI.

16480. GARCINIA INDICA.

16481. IBERVILLEA sp. (?).

From Mexico. Received thru Dr. J. N. Rose, of the United States National Museum, who collected the seed in the summer of 1905.

"A very interesting, attractive vine, which grows in very dry districts. Fruit red." (*Rose.*)

16482. CALYPTROGYNE DULCIS.

From Santiago de las Vegas, Cuba. Received thru Departamento de Botánica, Estación Central Agronómica, November 28, 1905.

16483 to 16485. ARACHIS HYPOGAEA. **Peanut.**

From Cat Island, S. C. Grown by Mr. J. H. Tull, special agent of the Department of Agriculture. Received November 20, 1905.

16483. Grown from S. P. I. No. 4253. From Cairo, Egypt.

16484. Grown from S. P. I. No. 9406. From Sao Paulo, Brazil.

16485. Grown from S. P. I. No. 11140. From Spain.

16486. ARACHIS HYPOGAEA. **Peanut.**

From Japan. Received thru the Botanic Gardens, Durban, Natal, South Africa, December 2, 1905.

16487. DIOSPYROS EBENUM. **Sapote negro.**

From Manila, P. I. Received thru Mr. Thomas L. Lyon, of the Insular Bureau of Agriculture, December 2, 1905.

"Wood reputed good, but variable in color. One of the most attractive of our broad-leaved evergreens. Fruits astringent." (*Lyon.*)

16488. VICIA SATIVA ALBA. **Pearl vetch.**

From New Era, Oreg. Received thru Mr. Henry Gelbrich, December 5, 1905.

16489. MELILOTUS ALBA. **Sweet clover.**

From Birmingham, Ala. Received thru the Amzi Godden Seed Company, December 4, 1905.

16490 to 16494. JUNCUS spp. **Matting rush.**

Collected by Mr. J. H. Tull, special agent of the Department of Agriculture. Received December 5, 1905.

16490. JUNCUS EFFUSUS.

Collected on Cat Island, S. C.

16491. JUNCUS EFFUSUS CONGLOMERATUS.

Collected near Kinston, N. C.

16492. JUNCUS EFFUSUS CONGLOMERATUS.

Collected on Black River road, near Georgetown, S. C.

16493. JUNCUS EFFUSUS CONGLOMERATUS.

Collected on Cat Island, S. C.

16494. JUNCUS EFFUSUS CONGLOMERATUS.

Collected near Newbern, N. C.

16495 to 16505.

From the White House Propagating Gardens, Washington, D. C. Received December 5, 1905.

A collection of ornamentals.

16495. Calathea ornata majestica.

16496. Xanthosoma lindeni.

16497. Calathea pulchella.

16498. Calathea vandenheckei.

16499. Calathea intermedia.

16500. Calathea warscewiczii.

16501. Ischnosiphon hirsuta.

16502. Maranta wallisi.

16503. Maranta amabilis.

16504. Homalomena wallisi.

16505. Calathea (?) sp.

16506. Aralia cordata. **Udo.**

From Waseda, Tokyo, Japan. Received thru J. Ikeda & Co., December 5, 1905.

16507. Panicum sp.

From Pretoria, South Africa. Received thru Prof. J. Burtt Davy, of the Transvaal Department of Agriculture, December 5, 1905.

16508. Medicago sativa. **Alfalfa.**

From Amasia, Turkey. Received thru Mr. H. Caramanian, November 25, 1905.

16509 to 16540.

From Nancy, France. Received thru Victor Lemoine & Son, December 4, 1905.

16509. Anemone japonica.

16510. Anemone japonica.

16511. Deutzia myriantha.

16512. Deutzia vilmorinae.

16513. Philadelphus lemoinei.

16514 to 16540. Phlox decussata. **Perennial phlox.**

Named varieties.

16541 to 16762. Paeonia spp. **Peony.**

From Chenonceaux (Indre-et-Loire), France. Received thru Monsieur A. Dessert, December 2, 1905.

16541 to 16642. Named varieties of the Chinese herbaceous section.

16643 to 16659. Named varieties of the European herbaceous section.

16660. Paeonila anomala (or Smouthii).

16661. Paeonia tenuifolia.

16662. Paeonia tenuifolia flore pleno.

16663 to 16759. Paeonia moutan. Named double varieties.

16760 to 16762. Paeonia moutan. Named single varieties.

16763 and 16764.

From the Office of Gardens and Grounds, Department of Agriculture. Received December 8, 1905.

16763. Calathea sp.

Rough-pubescent petiole basal; green thruout.

16764. Maranta sp.

Near *Maranta arundinacea*, but with side shoots on culms.

16765 to 16769.

From the White House greenhouse, Public Buildings and Grounds, Washington, D. C. Received December 8, 1905.

16765. Maranta splendida.

16766. Calathea arrecta.

16767. Calathea makoyana.

16768. Calathea roseo-picta.

16769. Calathea undulata.

16770. Zea mays. **Sweet corn.**

From North Clarendon, Vt. Received thru Mr. D. Dana Hewitt, December 11, 1905.

White Malakof. Grown from S. P. I. No. 13256. (Lot "A" selected from No. 16772.)

16771. Medicago denticulata. **Bur clover.**

From San Francisco, Cal. Received thru the Jessup-Wheelan Company, December 11, 1905.

16772. Zea mays. **Sweet corn.**

From North Clarendon, Vt. Received thru Mr. D. Dana Hewitt, December 11, 1905.

White Malakof. Grown from S. P. I. No. 13256.

16773 to 16780.

From St. Louis, Mo. Received thru Mr. Fred Mueller, of the Missouri Botanical Gardens, December 11, 1905.

16773. Alocasia macrorhiza variegata.

From Ceylon.

16774. Alocasia odora.

From East Indies.

16775. Colocasia sp.

From Mexico.

16776. Colocasia antiquorum euchlora.

From India.

16777. Colocasia indica.

16778. Xanthosoma sp.

From Cuba.

16779. Xanthosoma violaceum.

From West Indies.

16780. (Undetermined.)

16781 to 16784. Zea mays. **Sweet corn.**

From North Clarendon, Vt. Received thru Mr. D. Dana Hewitt, December 11, 1905.

White Malakof.

16781. Grown from S. P. I. No. 13357.

16782. Grown from selection "B" of S. P. I. No. 13256.

16783. Grown from selection "G" of S. P. I. No. 13256.

16784. Grown from selection "C" of S. P. I. No. 13256.

16785. Hibiscus sabdariffa. **Roselle.**

From Mayaguez, P. R. Received thru the Porto Rico Experiment Station, December, 1905.

16786. Eucalyptus corymbosa. **Bloodwood.**

From Bowen, North Queensland, Australia. Received thru Mr. William Pettigrew, of the Queensland Acclimatization Society, December 6, 1905.

"One of the numerous species of Australian eucalyptus. A tree of medium size, with persistent flaky bark, often reported as stunted or shrubby in appearance, but frequently attaining a height of 150 feet and a trunk diameter of 3 feet. It is restricted to the warmer and moister coast regions of northeast Australia, and, to judge by its absence in the interior, could hardly be expected to grow in a region subject to frost or extremes of dryness. The tree furnishes a wood that is easily worked when fresh, but exceedingly hard when dry. The presence of kino makes it unsuitable for lumber or fuel, but also serves to make it very durable underground and resistant to white ants; hence it is very valuable for railroad ties, posts, culverts, for paving, and for other uses in underground situations. Fence posts of this material are reported to have lasted for forty years in Australia. The bark yields 28 per cent tannic acid and the leaves about 18 per cent. The creamy white flowers of this tree contain a large amount of nectar and are much visited by bees. The tree is also one of the sources of the kino of commerce." (*McClatchie.*)

16787. GARCINEA SPICATA. **Fukuji tree.**

From Riu Kiu Islands, Japan. Received thru Mr. H. E. Amoore, December 11, 1905.

"An ideal wind-break." (*Amoore.*)

16788. NICOTIANA TABACUM. **Tobacco.**

From Morrinhos, State of Goyaz, Brazil. Selected by Mr. Antonio Borges Sampaio, of Uberaba, Minas-Geraes, and sent in by Dr. H. M. Lane, of Sao Paulo, Brazil. Received December 15, 1905.

"The famous *Morrinhos* tobacco. The tobacco grown in Sao Paulo and Goyaz is probably from seed brought from the Orient by the early Portuguese settlers, who took great pains to keep it pure. Goyaz is located in the mountainous region of Brazil, about 700 miles northwest of Rio de Janeiro, in latitude 16° S., where the mean annual temperature is 80°, with a maximum of 104° and a minimum of 25°." (*Lane.*)

16789 to 16796.

From Hangchow, China. Received thru Mr. Frederick D. Cloud, United States vice-consul, December 15, 1905.

16789. GLYCINE HISPIDA. **Soy bean.**

Yellow. An oil bean.

16790. GLYCINE HISPIDA. **Soy bean.**

Black. An excellent table bean.

16791. PHASEOLUS sp. **Bean.**

16792. ANDROPOGON SORGHUM. **Sorghum.**

16793. PHASEOLUS RADIATUS. **Mung bean.**

16794. VIGNA SESQUIPEDALIS (?).

"Grow with long pod and bear well. Used as a vegetable." (*Cloud.*)

16795. VIGNA SINENSIS (?). **Cowpea.**

"Very different from preceding. More prolific, shorter pod, and a better eating bean." (*Cloud.*)

16796. GLYCINE HISPIDA. **Soy bean.**

Black.

"All of these varieties are largely grown in China and, as in the case of the yellow soy bean, are very valuable. The black soy bean is extensively grown in the north for forage purposes and constitutes the principal article of food for horses, donkeys, and cattle. It is also a good table bean. This bean mixed with '*kaoliang*' (sorghum) seed, chopped grass, or straw, with a little bran, makes the very best horse feed. Perhaps the '*kaoliang*' is the most highly prized of all forage plants grown in China. No part of the plant goes to waste. Two or three weeks before the plant matures and the seed is ripe the farmer strips nearly all the blades from the plant, ties them in bundles, allows them to cure in the sun for a few days, and then stacks them away

16789 to 16796—Continued.

indoors. All thru the winter these blades are keenly relished by horses and donkeys. Then the seeds are gathered, combed out, and marketed. Several varieties of alcohol and wines are made from these seeds, and the deadly native drink 'sam-shu'—at least one variety of it—is made from '*kauliang*' seed. The seed makes excellent feed for stock of all kinds. The long stalks are thrown on the thrashing floor, rolled flat by heavy stone rollers, carefully cleaned of all particles of pith, and woven into a great variety of mats and matting, suitable for use on floors, for window shades, or for the roofs of native houses and sheds. These stalks are also extensively used for fuel by the farming class. It is a most valuable crop and may be found thruout all the northern provinces. Not grown much as far south as Hang-chow.

"The yellow bean (16789) is the 'bean-cake' bean so extensively grown in the Manchurian provinces and is a most valuable crop. May be grown southward, but flourishes best in colder latitudes." (*Cloud.*)

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